THE JOURNAL
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2. Herrell, W. E.; Hallman, F. R.; Wallace, W. M., and Bartholomew, L. A.: Proc. Staff Meet. Mayo Clin. 25:183 (Apr. 12) 1950.

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(Continued on Page 114)

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PHOSPHORUS	315 mg.	RIBOFLAVIN	0.7 mg.		

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A cup of Hot Ovaltine makes an excellent contribution of virtually all essential nutrients, adding substantially to the nutritional start for the day. It also serves in a gustatory capacity by enhancing the appeal of breakfast and making other foods more inviting.

The nutrient contribution made by a cup of Ovaltine is apparent from the table below. Note the wealth of essentials added to the nutritional intake by making the simple recommendation of adding a cup of Hot Ovaltine to the child's breakfast.

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FAT	10.5 Gm.	COPPER	0.2 mg.	VITAMIN C	10 mg.
CARBOHYDRATE	22 Gm.	VITAMIN A	1000 I.U.	VITAMIN D	140 I.U.
CALCIUM	370 mg.	VITAMIN B_1	0.39 mg.	CALORIES	225
PHOSPHORUS	315 mg.	RIBOFLAVIN	0.7 mg.		

*Based on average reported values for milk.

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1. LEHR, D. (1950), RELATIVE MERITS OF COMMONLY USED SULFONAMIDE DRUGS AS COMPONENTS OF MIXTURES, N. Y. STATE J. MED., 50:1361, JUNE.

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K. H. Johnson. M.D.....1116 Olds Tower Building, Lansing
R. C. Kingswood, M.D.....90 E. Warren, Detroit 1
W. A. Le Mire, M.D.....1106 First Avenue, Escanaba
J. E. Livesay, M.D.....619 Mott Foundation Bldg., Flint
H. J. Meier, M.D.....87 W. Pearl Street, Coldwater
B. T. Montgomery, M.D.....309 Ashmun Street, Sault Ste. Marie
H. F. Osterhagen, M.D.....West Bay Shore Road, Traverse City
C. A. Payne, M.D.....Blodgett Memorial Hospital, Grand Rapids
L. A. Pratt, M.D.....3919 John R. Street, Detroit
G. B. Saltonstall, M.D.....112 Clinton Street, Charlevoix
R. W. Teed, M.D.....215 S. Main Street, Ann Arbor
R. V. Walker, M.D.....1255 David Whitney Building, Detroit 26
Arch Walls, M.D.....17201 W. McNichols Road, Detroit 19
T. P. Wickliffe, M.D.....1167 Calumet Avenue, Calumet
D. B. Wiley, M.D.....4692 Van Dyke, Utica

Postgraduate Medical Education Committee

H. H. Cummings, M.D., *Chairman*, (1952)..Dept. of P. G. Medicine University Hospital, Ann Arbor
E. I. Carr, M.D., *Vice Chairman*, (1952)....300 W. Ottawa, Lansing
B. R. Corbus, M.D., (1951).....Metz Building, Grand Rapids
G. J. Curry, M.D., (1951).....401-3 Genesee Bank Building, Flint
A. C. Furstenberg, M.D., (1951).....Dean, University of Michigan Medical School, Ann Arbor
W. B. Fillinger, M.D., (1951).....Ovid
L. J. Gariepy, M.D., (1952).....16401 Grand River, Detroit 27
J. R. Heidenreich, M.D., (1953).....Daggett
D. H. Kaump, M.D., (1953).....Providence Hospital, Detroit 8
Alfred LaBine, M.D., (1952).....Houghton
P. A. Riley, M.D., (1951).....500 S. Jackson, Jackson
J. M. Robb, M.D., (1951)....641 David Whitney Building, Detroit 26
G. H. Scott, Ph.D., (1951).....Dean, Wayne University College of Medicine, Detroit
J. M. Sheldon, M.D., (1953).....University Hospital, Ann Arbor
W. J. Smith, M.D., (1951).....E. Harris Street, Cadillac
E. D. Spalding, M.D., (1953).....10 Peterboro, Detroit 1
F. A. Weiser, M.D., (1951).....4162 John R., Detroit

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M. R. Burnell, M.D.....General Motors Building, Detroit
B. E. Brush, M.D.....2799 W. Grand Boulevard, Detroit 2
W. B. Cooksey, M.D.....62 W. Kirby, Detroit 2
H. H. Cummings, M.D.....Dept of P. G. Medicine, University of Michigan, Ann Arbor
A. E. Heustis, M.D.....Mich. Dept. of Health, DeWitt Road, Lansing
R. J. Mason, M.D.....308 N. Woodward Avenue, Birmingham
H. A. Pearse, M.D.....852 Fisher Building, Detroit
H. W. Porter, M.D.....505 Wildwood, Jackson
L. W. Shaffer, M.D.....3852 Bishop Road, Detroit
J. M. Sheldon, M.D.....Dept. of P. G. Medicine, University of Michigan, Ann Arbor
O. D. Stryker, M.D.....Macomb County Health Dept., Mt. Clemens
J. W. Towey, M.D.....Powers
Frank Van Schoick, M.D.....419 W. High, Jackson
R. W. Waggoner, M.D.....Neuropsychiatric Institute, University Hospital, Ann Arbor

Advisory Committee to National Foundation for Infantile Paralysis

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F. M. Adams, M.D.....322 Wabeek Building, Birmingham
E. B. Cudney, M.D.....Pontiac Motor Co., Pontiac
F. E. Curtis, M.D.....10 Peterboro, Detroit 1
A. G. Goetz, M.D.....710 David Whitney Building, Detroit 26
E. E. Martmer, M.D.....526 Professional Building, Detroit 1
N. R. Moore, M.D.....601 Fifth Avenue, Bay City
J. S. Rozan, M.D.....511 Bank of Lansing Building, Lansing
H. H. Stryker, M.D.....Borgess Hospital, Kalamazoo
F. P. Walsh, M.D.....474 Fisher Building, Detroit 2
E. A. Wishropp, M.D.....227 Kenwood Court, Grosse Pointe

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D. G. Eisele, M.D., (1952).....Ironwood
W. L. Harrigan, M.D., (1953).....Mt. Pleasant
H. B. Hoffman, M.D., (1952).....121 Ludington Avenue, Ludington
W. E. Nesbitt, M.D., (1951).....312 Second Avenue, Alpena
H. W. Porter, M.D., (1954).....505 Wildwood Avenue, Jackson
A. H. Price, M.D., (1954).....62 W. Kirby, Detroit 2

Industrial Health Committee

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N. H. Amos, M.D.....1704 Central Tower, Battle Creek
A. L. Brooks, M.D.....General Motors Corp., Pontiac
W. P. Chester, M.D.....5057 Woodward, Detroit 2
Henry Cook, M.D.....326 Genesee Bank Building, Flint
W. A. Dawson, M.D.....25951 Avondale Road, Inkster
E. A. Irvin, M.D.....1343 Buckingham Road, Detroit 30
O. J. Johnson, M.D.....207 N. Walnut, Bay City
H. L. Krieger, M.D.....11390 Strathmore, Detroit 27
V. S. Laurin, M.D.....804 Hackley Union Bank Building, Muskegon
E. F. Lutz, M.D.....13-204 General Motors Building, Detroit 2
J. M. Lynch, M.D....Technical Center, Gen. Motors Corp., Warren
R. D. Mudd, M.D.....Chevrolet Iron Foundry, Saginaw
N. W. Scholle, M.D.....Anderson Building, Muskegon Heights
H. T. Sethney, M.D.....Menominee Drug Building, Menominee
M. W. Shellman, M.D.....Metz Building, Grand Rapids
E. E. Weston, M.D.....101 James Couzens Highway, Detroit 21
A. H. Whittaker, M.D.....1427 E. Jefferson, Detroit 7
J. L. Zemens, M.D.....Packard Motor Car Co., Detroit 32
C. D. Selby, M.D., *Advisor*.....Sheraton Hotel, 15 E. Kirby, Detroit

Sub-Committee on Governmental Relations

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M. R. Burnell, M.D.....General Motors Building, Detroit
W. P. Chester, M.D.....5057 Woodward Avenue, Detroit 2
J. M. Lynch, M.D...Technical Center, General Motors Corp., Warren
J. L. Zemens, M.D.....Packard Motor Car Co., Detroit 32

Advisory Committee to Women's Auxiliary

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M. A. Darling, M.D.....673 Fisher Building, Detroit
L. J. Geerlings, M.D.....Fremont
N. J. McCann, M.D.....Marquette
H. B. Zemmer, M.D.....Lapeer

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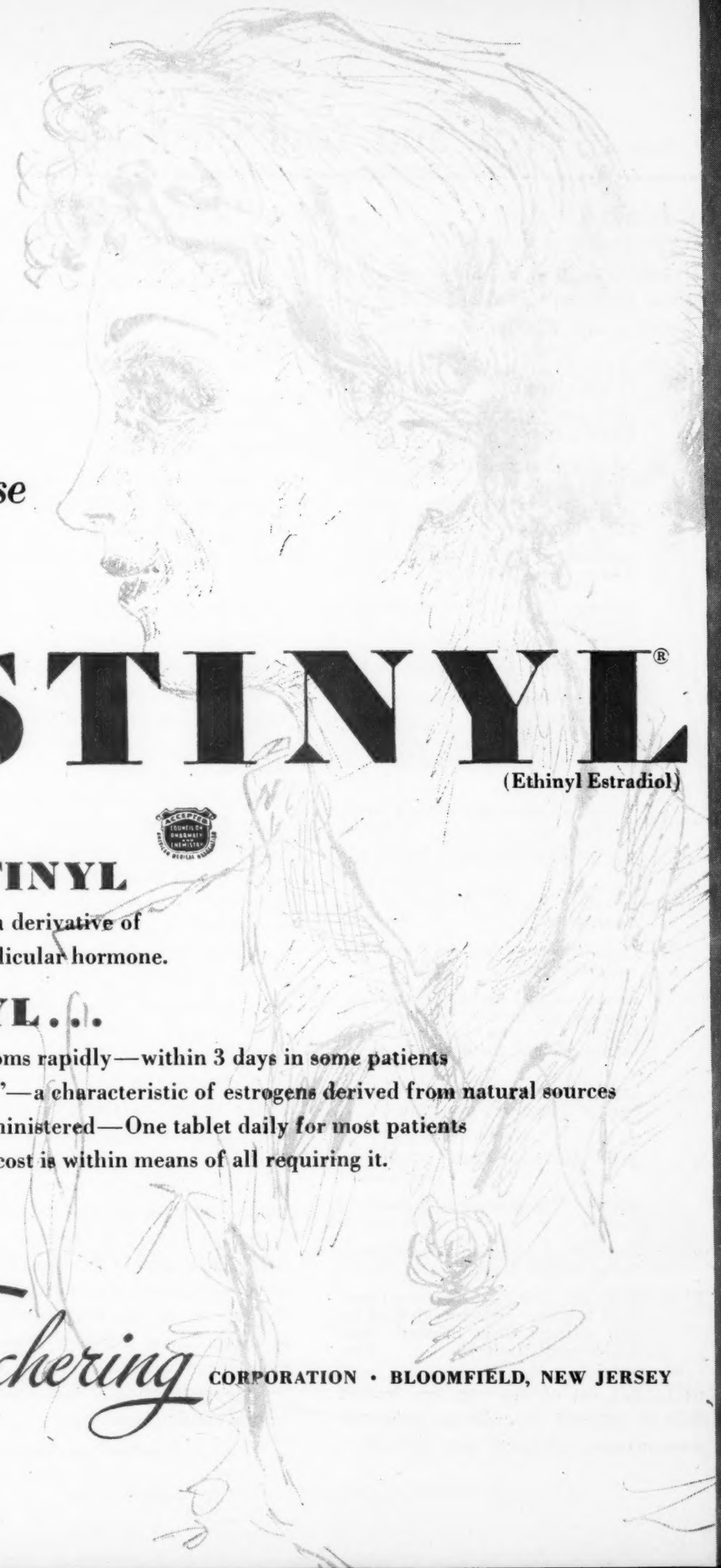
W. E. Barstow, M.D.....St. Louis
William Bromme, M.D.....10 Peterboro, Detroit 1
A. O. Brown, M.D.....742 Maccabees Building, Detroit 2
R. H. Criswell, M.D.....407 Phoenix Building, Bay City
C. A. Payne, M.D.....Blodgett Memorial Hospital, Grand Rapids

Special Committee to Study Basic Science Law

E. D. Spalding, M.D., *Chairman*.....10 Peterboro, Detroit
W. B. Harm, M.D.....5884 W. Vernor Highway, Detroit
Mr. J. Joseph Herbert.....127 S. Cedar Street, Manistique
J. E. Livesay, M.D.....621 Mott Foundation Bldg., Flint
J. D. Miller, M.D.....Metz Building, Grand Rapids
J. H. Schlemer, M.D.....13826 Dexter Blvd., Detroit

Special Committee on Increase of Students Graduated from Michigan Medical Schools

E. F. Sladek, M.D., *Chairman*....123 E. Front Street, Traverse City
J. S. DeTar, M.D.....Milan
L. Fernald Foster, M.D.....919 Washington Ave., Bay City



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MEDICAL MEETINGS AND CLINIC DAYS

A list of known medical meetings and clinic days, sponsored by county medical societies and other physicians' groups in Michigan, follows:

March 14-15-16	MICHIGAN POSTGRADUATE CLINICAL INSTITUTE	Detroit
March 17	SECOND ANNUAL MICHIGAN HEART DAY	Detroit
Spring	MSMS Postgraduate Extramural Courses	State-wide
April 3	Calhoun County Medical Society's Clinic Day	Battle Creek
April 4	SECOND MICHIGAN INDUSTRIAL HEALTH DAY	Detroit
April 18	Genesee County Medical Society's Cancer Day	Flint
April	Highland Park Physicians Club Clinic	Highland Park
May 3	Ingham County Medical Society's Clinic Day	Lansing
May 9	Wayne University College of Medicine Alumni Association Clinic Day and Reunion	Detroit
May 9-11	American College of Surgeons Section Meeting	Detroit
May 22	Bon Secours Hospital Clinic Day	Grosse Pointe
June	St. Clair County Medical Society's Clinic Day	St. Clair
June	Upper Peninsula Medical Society Annual Meeting	
July 26-27	Annual Coller-Penberthy Medical-Surgical Conference (sponsored by Grand Traverse - Leelanau - Benzie County Medical Society)	Traverse City
Sept. 26-27-28	MICHIGAN STATE MEDICAL SOCIETY ANNUAL SESSION	Grand Rapids
October 13	Third Michigan Cancer Conference	East Lansing
Autumn	MSMS Postgraduate Extramural Courses	State-wide
Oct. or Nov.	American Academy of General Practice of Wayne County	Detroit
November 7	Clara Elizabeth Fund Lectures (sponsored by Genesee County Medical Society and the Clara Elizabeth Fund for Maternal Health)	Flint

Additions to this list of meetings are invited by the Editor of JMSMS, in order to make this monthly announcement complete and accurate.

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of December 13, 1950

Seventy-nine items were considered by the Executive Committee of The Council at its December 13 meeting. Chief in importance were:

- Monthly financial reports were presented and approved. Bills payable were inspected and authorized to be paid.
- Statement re bargaining of medical services, for publication in a news letter to Michigan manufacturers, was presented and approved.
- Plan of invitational membership campaign, with kickoff to be made at Annual County Secretaries -Public Relations Conference of January 21, 1951, was presented and approved, with authorization to the Public Relations Department to develop a brochure setting forth the benefits of membership in the AMA, Michigan State Medical Society, and component county medical societies of Michigan.
- Hospital standardization program: a statement from the American College of Surgeons on this subject was read. The ACS does not intend to relinquish its control of hospital standardization and has suggested a joint committee, representative of all interested groups, to work out a solution of existing problems.
- Report of MSMS representatives at annual session of Michigan Health Officers Association in Grand Rapids, November 29-30, was presented and approved.
- At the suggestion of President C. E. Umphrey, M.D., Detroit, a letter of congratulation was authorized to be sent to Dr. David Henry, Detroit, President of Wayne University, on his efforts in urging an increase in facilities for training of more doctors of medicine at Wayne University College of Medicine.
- At the suggestion of President Umphrey, a letter of congratulation was authorized to be sent to the officers of the Woman's Auxiliary of the Michigan State Medical Society, concerning their recent work and efforts, and particularly for the questionnaire outlining their program for the ensuing year.

(Continued on Page 120)

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HIGHLIGHTS OF THE COUNCIL

(Continued from Page 118)

- At the suggestion of President Umphrey, a letter of congratulation was authorized to be sent to C. D. Benson, M.D., Detroit, and his Wayne County Medical Society Committee for an excellent report on medical plans for civilian defense.
- Insurance reporting forms: pursuant to instruction of the 1950 MSMS House of Delegates, information has been obtained on more simplified and shorter insurance reporting forms from the AMA and from certain state medical societies. A Committee to study these reports was appointed: Matthew Peelen, M.D., Kalamazoo, Chairman, O. O. Beck, M.D., Birmingham, E. A. Osius, M.D., Detroit.
- Secretary L. Fernald Foster, M.D., reported that Major General George E. Armstrong, Washington, D. C., Deputy Surgeon General of the Army, had accepted invitation to be luncheon speaker on the occasion of the Annual County Secretaries-Public Relations Conference, Detroit, January 21, 1951.
- 1951 Michigan Postgraduate Clinical Institute: in Detroit, March 14-15-16, 1951: (a) The following were appointed as Chairmen of the six Assemblies and three luncheons: B. R. Corbus, M.D., Grand Rapids; J. H. Fyvie, M.D., Manistique; A. E. Heustis, M.D., Lansing; J. E. Manning, M.D., Saginaw; R. M. McKean, M.D., Detroit; J. M. Sheldon, M.D., Ann Arbor; D. I. Sugar, M.D., Detroit; C. E. Umphrey, M.D., Detroit; and R. W. Waggoner, M.D., Ann Arbor; (b) Scroll to Michigan's Foremost Family Physician of 1950, Lunette I. Powers, M.D., of Muskegon, was authorized to be presented to her on the occasion of the MPCI, on Wednesday, March 14, 1951; (c) Chairman of Wayne County Hospitality Committee, W. W. Babcock, M.D., Detroit, President of the Wayne County Medical Society.
- AMA Rural Health Conference, Memphis, Tenn., February 23-24: John R. Rodger, M.D., Bellaire, Chairman of the MSMS Committee on Rural Medical Service, and R. J. Hubbell, M.D., Kalamazoo, a member of this Committee, were authorized to represent the MSMS at this Conference.
- Conference on Temporary Cash Sickness Benefits Legislation (sponsored by AMA and held in N.Y.C. on November 12, 1950): excellent report on this Conference as submitted by O. J. Preston, M.D., Flint, MSMS representative, was read and received with thanks.
- 1951 MSMS Annual Session in Grand Rapids, September 26-27-28: (a) General Chairman was selected—J. Duane Miller, M.D., Grand Rapids; (b) Chairman of Press Relations Committee for the House of Delegates—J. E. Livesay, M.D., Flint; (c) Chairman of the Scientific Press Relations Committee—C. A. Payne, M.D., Grand Rapids; (d) a Scientific Exhibit was authorized at the Grand Rapids Annual Session of 1951.
- A request from the Michigan Department of Insurance for information on the subject of ectopic pregnancy was referred to the MSMS Maternal Health Committee for advice.
- Definition of local health unit, as requested by the Legal Advisor of AMA, was discussed by President C. E. Umphrey, M.D., by State Health Commissioner A. E. Heustis, M.D., Lansing, and by Detroit City Health Commissioner Joseph G. Molner, M.D., Detroit; a letter on this subject was authorized to be sent to the AMA, based on discussions at this meeting.
- Blue Cross-Blue Shield: E. D. Barnett, M.D., Detroit, President of Michigan Hospital Service; R. L. Novy, M.D., Detroit, President of Michigan Medical Service, and W. S. McNary, Detroit, Executive Vice President of Michigan Hospital Service, attended the meeting to present a progress report on Michigan Hospital Service. Upon the invitation of President Barnett, a committee of five MSMS representatives were appointed to meet with Dr. Barnett and with representatives of health and accident insurance companies at a meeting in Dr. Barnett's office on Tuesday, December 19. Committee: W. B. Cooksey, M.D., Detroit, Chairman; R. H. Baker, M.D., Pontiac; William Bromme, M.D., Detroit; C. E. Umphrey, M.D., Detroit, and J. Joseph Herbert, LL.B., Manistique.
- Matters of mutual interest were discussed with State Health Commissioner A. E. Heustis, M.D., including: (a) Reporting of communicable diseases by laboratories, on which subject a meeting would be called in January by Dr. Heustis; (b) Civil Defense—the Technical Committee on Medical and Health Matters presented a recommendation to the over-all Planning Committee

(Continued on Page 122)

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HIGHLIGHTS OF THE COUNCIL

(Continued from Page 120)

that it was in general agreement with the present blood-typing program being run in Jackson, Alma, Ypsilanti, Birmingham, on employes of the City of Detroit Health Department, and on the Wayne University personnel; Dr. Heustis stated that the Planning Committee took away from the Technical Committee the technical phases of the operation of a blood-typing program and placed it under the Michigan Health Department; (c) Budget cuts in federal funds forced the State Health Department to send termination notices to twenty-five employes—certain phases of the State Health Department's services will be limited including quantitative Kahns, cultures for tuberculosis, discontinuance of notification of birth registrations, and reduction of x-ray survey units; (d) The State Health Commissioner congratulated the Jackson County Medical Society on its December 12 meeting at which 159 state, county, and city officials considered ways and means to organize a county health unit.

- Insurance forms not issued by insurance companies: Legal Counsel J. Joseph Herbert gave his opinion on an inquiry concerning this recent practice: there is nothing improper in a doctor of medicine making out such an insurance report but Mr. Herbert suggested that when the insurance company form is not identified, either the identity be obtained, or the patient's consent to make the report be secured; re report to any oragnization other than an insurance company—this should not be sent without the consent of the patient.
- Monthly progress report of Rheumatic Fever Control Co-ordinator Leon DeVel, M.D., was presented and received.
- Reports on AMA Clinical Session, Cleveland, December 3-7, 1950, were presented.
- Doctors available for night calls in Ypsilanti. A system worked out by A. F. Milford, Jr., M.D., of Ypsilanti to provide night calls, and approved by the local medical profession—with patients being referred, after the night service, to their family doctor of medicine—was invited to the attention of the Executive Committee of The Council which requested President Umphrey to write Dr. Milford acknowledging his effort in providing night service for the people of Ypsilanti and advising him that MSMS will watch the experiment with interest and request a progress report at a later date.
- Committee appointments: (a) LeMoyne Snyder, M.D., Lansing was appointed to the Mental Hygiene Committee; (b) Thomas Heldt, M.D., Detroit, was appointed to the Advisory Committee (to State Department of Public Instruction) on Mental Health of Children; (c) C. J. Poppen, M.D., Lansing, was appointed to the Mental Hygiene Committee; and, (d) Wilfrid Haughey, M.D., Battle Creek, was appointed to the Advisory Committee to the State Social Welfare Department.
- Monthly progress report of the Public Relations Counsel was presented including: (a) Report on recent visits made by Mr. Brenneman and the three field secretaries; (b) Report on recent Annual Session of Michigan Hospital Association in Detroit; (c) The MSMS movie "To Your Health" has been shown in 216 theaters and the movie "Lucky Junior" in 245 theaters; (d) A joint meeting of MSMS representatives with a committee of the Life Underwriters Association was recommended; (e) Authorization was given the Public Relations Counsel to process a personal letter thanking the 200 outstanding M.D. workers, leaders, and key-men in their areas for recent organizational efforts in behalf of MSMS; (f) A new television program over WJBK-TV, Detroit, entitled "It's Your Life"—a half-hour program beginning December 17 and running every Sunday, produced by the Michigan State Medical Society and sponsored by the Medical Arts Pharmacy of Detroit, was reported; the script for the December 17 presentation was read and approved by the Executive Committee of The Council, which voted congratulations to the Medical Arts Pharmacy on the presentation of this interesting and informative TV program featuring medicine and health.
- Committee reports. The following Committee reports were given consideration: (a) Advisory Committee to Woman's Auxiliary, meeting of October 20; (b) Permanent Conference Committee, meeting of November 8; (c) Committee on Scientific Work, meeting of November 16; (e) Committee to Study Veterans Facility at Grand Rapids, meeting of November 22 and

(Continued on Page 124)

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HIGHLIGHTS OF THE COUNCIL

(Continued from Page 122)

inspection of November 30; (f) Advisory Committee to State Social Welfare Department, meeting of November 28; (g) Committee on Scientific Radio, meeting of November 29; (h) Committee of Ophthalmologists, information from Chairman R. H. Pino, M.D.; Michigan Epilepsy Center, résumé of recommendations submitted by President A. J. Derbyshire, Ph.D.; Mental Hygiene Committee, meeting of November 30.

- Thanks were placed on the minutes to E. A. Osius, M.D., Detroit, former Councilor, who acted as host to the Executive Committee of The Council on this occasion.

MPCI—MARCH 14-15-16—DETROIT

The Fifth Michigan Postgraduate Clinical Institute will be held in the Book-Cadillac Hotel, Detroit, on Wednesday, Thursday, Friday, March 14, 15 and 16, 1951.

STAFFORD L. WARREN, M.D.

Burton R. Corbus, M.D., of Grand Rapids, General Chairman of Arrangements, invites all MSMS members to "one of the finest medical conferences that has ever been presented in Michigan." Attendance and interest in the MPCI increases yearly in direct ratio to the calibre of the program and the speakers of national prominence appearing on the platform. The Institute offers all doctors of medicine a concentrated three-day continuation course with lectures delivered by medical stars from all parts of the country. The program was printed in the January issue, Page 70. Copy of the final Program is available upon request to MPCI, 2020 Olds Tower, Lansing 8, Michigan.

Wednesday evening is Entertainment Night for registrants at the MPCI. Between 8:30 p.m. and 1:00 a.m., the Grand Ballroom of the Book-Cadillac Hotel will resound to the fine choral strains of Don Large and his Five Grenadiers, to the sweet and South American harmonies of Reg Thornton and his Orchestra, and to the zippy Square Dance music of "The Old-Timers." Host will be the Michigan Postgraduate Clinical Institute.

Stafford L. Warren, M.D., of Los Angeles, will speak on Thursday evening, March 15, 8:30 p.m., in the Grand Ballroom of the Book-Cadillac Hotel, on the subject of Atomic Warfare. This special feature of the MPCI, sponsored jointly by the Institute and the Wayne County Medical Society, will be a public meeting, to which all doctors of medicine, their wives, patients, and other friends are most cordially invited (no admission fee).

HEART DAY—MARCH 17—DETROIT

The second annual Michigan Heart Day will be featured on Saturday, March 17, under the sponsorship of the Michigan Heart Association. The morning lectures will be held in the Grand Ballroom of the Book-Cadillac Hotel, Detroit, followed by the annual Heart Day luncheon and the second Annual Meeting of Members of the Michigan Heart Association with election of officers. The program is published in the January issue, Page 76.

All MSMS members are invited by the Michigan Heart Association to attend its Heart Day, to refresh themselves in the latest advances during the past twelve months in the possible cause and present and future applications in preventing arteriosclerosis, hypertension and rheumatic fever.

WOMAN'S AUXILIARY BOARD MEETING, MARCH 14—DETROIT

The Woman's Auxiliary to the Michigan State Medical Society will hold its spring Board meeting at the Book-Cadillac Hotel, Detroit, on Wednesday, March 14, 1951, beginning at 10:00 a.m. Those invited to be present include the State Officers, Directors, Chairmen of Standing Committees, County Presidents and Presidents-elect.

Complimentary luncheon will be served at 12:00 noon. The meeting will be adjourned at 5:00 p.m.

Following the meeting, the members of the Woman's Auxiliary and the wives of all doctors of medicine are cordially invited to attend the entertainment of the Michigan Postgraduate Clinical Institute in the Grand Ballroom of the Book-Cadillac Hotel, Detroit, Wednesday, 8:30 p.m. (See program above.)

Thursday, March 15, is free for Woman's Auxiliary members. In the evening, wives of all physicians are invited to hear Stafford L. Warren, M.D., speak on Atomic Warfare, at 8:30 p.m., in the Grand Ballroom, Book-Cadillac Hotel.

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INDUSTRIAL HEALTH DAY—APRIL 4—DETROIT

The second Michigan Industrial Health Day—an instructive continuation course in industrial medicine and surgery—will be featured in the auditorium of the Rackham Memorial Building, 100 Farnsworth Ave., Detroit, all day Wednesday, April 4. (Program on Page 134.)

Dr. Lillian M. Gilbreth of Montclair, New Jersey, will be the featured speaker at the evening banquet, to be held at 7:00 p.m., in the Sheraton Hotel (across the square from the Rackham Building.) Dr. Gilbreth is known to millions of readers throughout the world as the peace-loving mother of twelve in the popular novels "Cheaper by the Dozen" and "Bells on Their Toes." Her subject on April 4 will be "The Industrial Workers' Better World." All doctors of medicine, their wives and friends are invited to hear the interesting Dr. Gilbreth.

MYSTERIOUS INSURANCE FORMS

Have patients presented you with insurance forms which do not carry the name of any insurance company? If so, what is the proper procedure for you to follow?

The MSMS Legal Counsel is of the opinion that there is nothing improper in a doctor of medicine executing such a report but he recommends that when the insurance company form is not identified, either the identity be obtained or the patient's consent to have the report executed be secured.

When such a form appears to come from an organization other than an insurance company, the Legal Counsel recommends that it should *not* be executed and signed by the doctor of medicine without the consent of the patient.

SENIORITY DECIDES THE PRESIDENCY

The Bay County Medical Society (Michigan) has a custom of many years' standing whereby every member, on the basis of seniority, becomes President of the Society. The plan of honoring the member with the greatest longevity in membership, was inaugurated in 1921. After thirty years, the plan continues to operate and seems to eliminate any possible dissension or rankling of individual members who otherwise might seek the presidency. Each new member of the Society knows that, should he remain in the county a sufficient length of time, the office of the Bay County Medical Society presidency will come to him. The waiting period is about twenty years.

AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

At a special meeting of the American Board of Obstetrics and Gynecology, held in Pittsburgh, Pennsylvania, December 14, 1950, the following changes in the regulations of the Board were unanimously adopted:

1. That physicians otherwise qualified, who were graduated before January 1, 1939, and whose required training was in obstetrics or gynecology alone, and who have confined their practice to obstetrics or gynecology for at least five (5) years immediately prior to application be accepted for examination as candidates for certification in either obstetrics or gynecology. In all other respects requirements for eligibility remain the same for those physicians graduated since 1939. Bilateral training is required as published in the *Bulletin* of the Board.

2. Applicants who have been certified by one of the other American Specialty Examining Boards will not be eligible for certification by this Board until they have relinquished the certificate previously conferred.

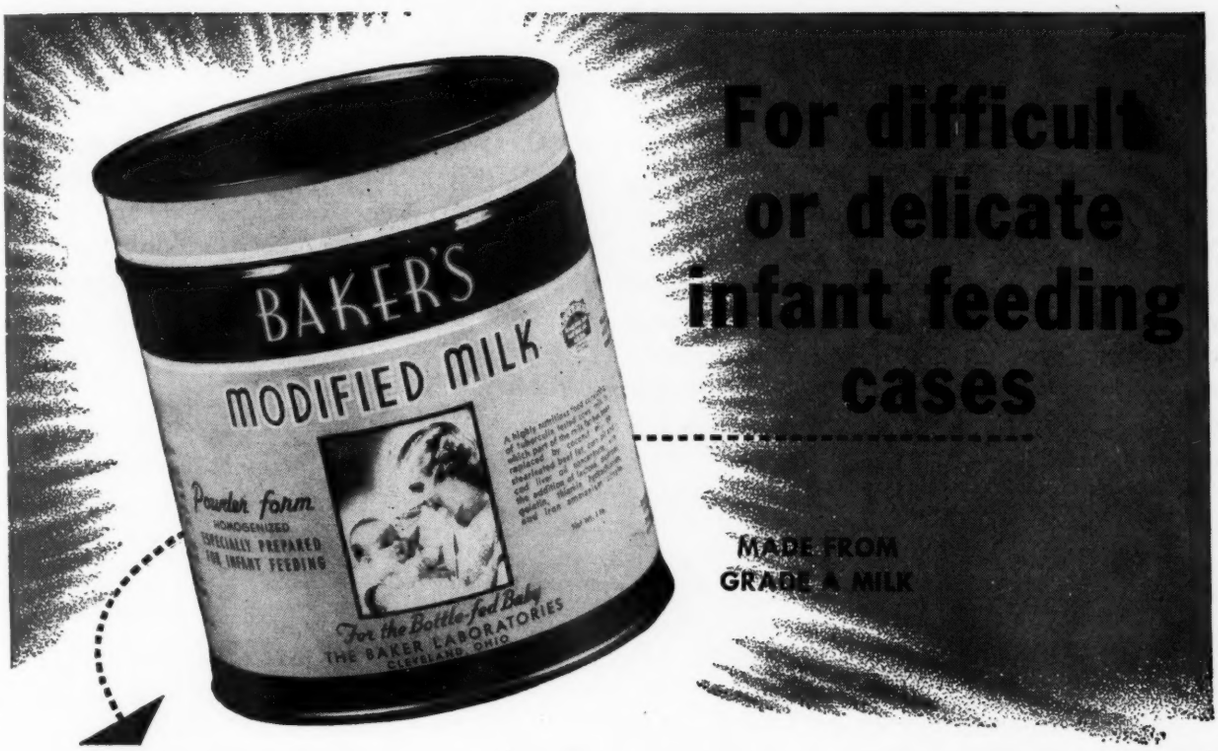
3. Since the vast majority of obstetrical and gynecological cases are non-operative the Board requires adequate training in basic sciences, infertility, endocrinology, oncology, irradiation therapy, psychosomatic medicine, electrotherapy, and other non-operative methods of diagnosis and treatment as well as training in major operative procedures.

ALCOHOLISM

For the first time American medicine nationally has accepted the problems of alcoholism as a responsibility.

On December 7, 1950, the House of Delegates, the policy-making body of the American Medical Association, passed a resolution referring the subject to its Committee on Chronic Diseases. This committee is headed by Dr. Robertson Ward of San Francisco.

(Continued on Page 128)



Baker's Modified Milk

POWDER FORM

● Baker's Modified Milk has always been made in two forms—powder and liquid.

For most feeding cases, the liquid form is usually prescribed because of the simplicity in formula preparation—just dilute with equal parts of water, previously boiled.

However, for prematures and difficult or delicate cases, the powder form is preferred because it is more readily digested. It is also preferable for complementary feedings when the baby is taking less than 14 ounces of formula per day. Many doctors prescribe Baker's Modified Milk (powder form) in cases of infantile eczema.

Doctors who prescribe Baker's will tell you they favor Baker's—powder or liquid—because of its wide application. With Baker's Modified Milk most babies make better progress, require fewer feeding adjustments from birth to the end of the bottle feeding period.

To put your babies on Baker's, just leave instructions at the hospital.

BAKER'S MODIFIED MILK

THE BAKER LABORATORIES INC.

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Division Offices: San Francisco, Los Angeles, Dallas, Denver, Seattle and Greensboro, N. C.

ACCEPTED COUNCIL ON FOODS AND NUTRITION AMERICAN MEDICAL ASSOCIATION

ALCOHOLISM

(Continued from Page 126)

The resolution, asking for action by the House of Delegates on this subject, was presented by Dr. Herbert H. Bauckus, of Buffalo, N. Y., a past president of the New York State Medical Society, which has had a special Committee on Alcoholism for the last two years. The New York State Committee until now has been the only state or county medical society committee taking action on this subject matter as a medical problem.

Dr. Milton G. Potter, Buffalo, N. Y., chairman of the New York State Medical Society's special committee on this subject, was in attendance at the Cleveland session. In discussing the resolution he said that he hoped that the AMA Committee on Chronic Diseases would formulate and put into effect on a nationwide basis a comprehensive and effective program for medicine's participation in the work of solving these problems.

LITERATURE AND FILMS ON ATOMIC ENERGY

Available films on Atomic and Civil Defense include:

Name of Film	Sound or Silent	MM	Color or B&W	Running Time	Charges	Remarks
"THEY ALSO SERVE"	Sound	16 MM.	B & W	17 min.	$2.00	Write to Comm. on Medical Motion Pictures, AMA, 535 N. Dearborn, Chicago 10.
"ATOMIC ENERGY"	Sound	16 MM.	B & W	11 min.	$2.50	EBFilms, Inc., 5745 Crabtree Road, Birmingham, Mich.
"OPERATION CROSS-ROADS" MN-5345		16 MM.	Color	27 min.		District Public Information Office, 9th Naval District Headquarters, Great Lakes, Ill.
"ABLE AND BAKER TEST AT BIKINI" MN-5352		16 MM.	B & W	20 min.		District Public Information Office, 9th Naval District Headquarters, Great Lakes, Ill.
ATOMIC MEDICAL CASES—JAPAN, WORLD WAR II PMF 5143	Sound		B & W	37 min.		Commanding General, 5th Army, 1660 East Hyde Park Bldg., Chicago, Ill. Att: Signal Officer
PHYSICS, PHYSICAL DESTRUCTION AND CASUALTY EFFECTS OF THE BOMB—PMF 5058			Color	32 min.		Film Library MMD, Bldg. 55, 6301 W. Jefferson, Detroit 17, Mich.
THE MEDICAL EFFECTS OF THE ATOMIC BOMB PT. II—PATHOLOGY AND THE CLINICAL PROBLEM—PMF 5148	Sound		Color	37 min.		Same as above. Cannot be shown without the approval of "The Surgeon, Fifth Army, Chicago."
THE MEDICAL EFFECTS OF THE ATOMIC BOMB PT. III—MEDICAL SERVICE IN ATOMIC DISASTER—PMF 5149	Sound		Color	28 min.		Same as above.
FIRST AID FOR CHEMICAL CASUALTIES—TF 8-1180	Sound		B & W	16 min.		Same as above.
"ATOMIC ENERGY"				45 min.	$8.50	Film Center, Inc., 64 W. Randolph, Chicago 1, Ill.

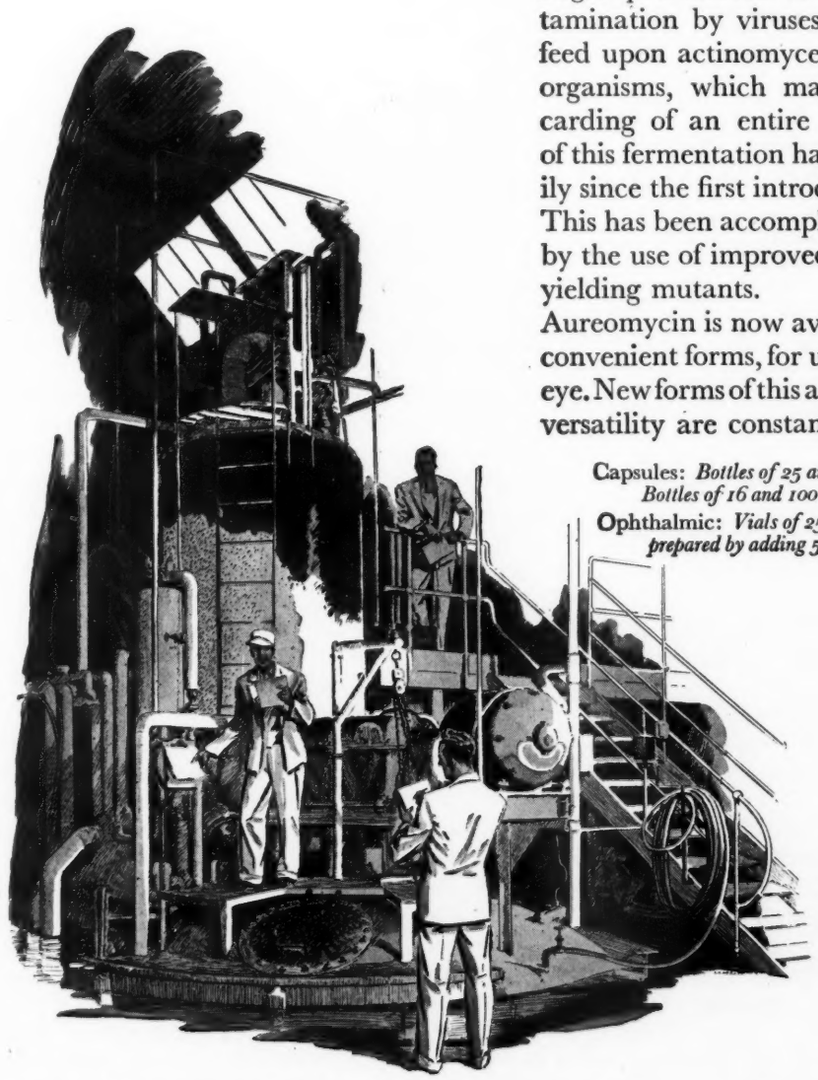
(Continued on Page 130)

Effective against many bacterial and rickettsial infections, as well as certain protozoal and large viral diseases

AUREOMYCIN

The insatiable demand for aureomycin throughout the world has necessitated not only a tremendous expansion of our production capacity in the United States, but the setting up of highly complex technical organizations in other countries, looking toward eventual universal distribution of this extraordinarily valuable antibiotic. The huge tanks in which the basic fermentations are carried out have a capacity of 20,000 gallons each. Rigid precautions are taken to avoid contamination by viruses (actinophages) which feed upon actinomyces, and by other microorganisms, which may necessitate the discarding of an entire batch. The efficiency of this fermentation has been increased steadily since the first introduction of aureomycin. This has been accomplished for the most part by the use of improved media and of higher-yielding mutants.

Aureomycin is now available in a number of convenient forms, for use by mouth and in the eye. New forms of this antibiotic of unsurpassed versatility are constantly being brought out.



Capsules: *Bottles of 25 and 100, 50 mg. each capsule. Bottles of 16 and 100, 250 mg. each capsule.*

Ophthalmic: *Vials of 25 mg. with dropper; solution prepared by adding 5 cc. of distilled water.*

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LITERATURE AND FILMS ON ATOMIC ENERGY

(Continued from Page 128)

Books and pamphlets in MSMS Library, on the subject of Atomic Energy and Emergency Medical Service, supplied through the courtesy of W. H. Gordon, M.D., Detroit, member of MSMS Emergency Medical Service Committee:

"WHAT YOU SHOULD KNOW ABOUT THE ATOMIC BOMB"—Surgeon General, Army Medical Dept.

"THE ATOM AND YOU"—Department of Public Instruction, State of Iowa.

"LECTURE SERIES IN NUCLEAR PHYSICS"—United States Atomic Energy Commission.

NUCLEAR SCIENCE ABSTRACTS, Vol. 4, Nos. 17 through 22, from September 15, 1950, through November 30, 1950—U. S. Atomic Energy Commission.

"THE RESPONSIBILITY OF THE COUNTY MEDICAL SOCIETY IN THE CIVIL DEFENSE PROBLEM"—Editorial of Wm. Bates, M.D., Director in *Philadelphia Medicine,* Sept. 30, 1950

"YOU AND THE ATOMIC BOMB"—What to do in Case of an Atomic Attack. Reprinted from *Look* Magazine by the New York State Civil Defense Commission.

"SURVIVAL UNDER ATOMIC ATTACK"—U. S. Government Booklet.

"HOW TO SURVIVE AN ATOMIC BOMB"—Richard Gerstell, Consultant, Civil Defense Office.

(Book) "CIVILIAN DEFENSE OF THE UNITED STATES"—Col. Dupuy and Lt. Carter.

(Book) "CIVIL AIR DEFENSE"—Lt. Col. Prentiss.

(Book) "THE EFFECTS OF ATOMIC WEAPONS"—Los Alamos Scientific Laboratory, United States Atomic Energy Commission.

"U. S. CIVIL DEFENSE"—National Security Resources Board.

"U. S. CIVIL DEFENSE—HEALTH SERVICES AND SPECIAL WEAPONS"—Federal Civil Defense Commission.

"DIRECTORY OF AMBULANCE PLANES"—U. S. Dept. of Commerce, Civil Aeronautics Administration.

(Book) "ATOMIC BOMBING—HOW TO PROTECT YOURSELF—WHAT AN "A" BOMB CAN DO . . . WHAT YOU CAN DO IN WORKING AGAINST ATTACK—"A" BOMB RADIATION—HOW TO DETECT "A" BOMB RADIATION—MEDICAL FIRST AID—TREATMENT OF BURNS—HISTORY OF ATOMIC ENERGY." Published by *Science.*

FACTS ABOUT AMA DUES FOR 1951

1. American Medical Association membership dues for 1951 are $25.00.

2. Fellowship dues for 1951 are $5.00 and are exclusive of membership dues.

3. American Medical Association membership dues are levied on "active" members of the Association. A member of a constituent association who holds the degree of Doctor of Medicine or Bachelor of Medicine and is entitled to exercise the rights of active membership in his constituent association, including the right to vote and hold office as determined by his constituent association, and has paid his American Medical Association dues, subject to the provisions of the By-Laws, is an "active" member of the association.

4. American Medical Association *membership dues* are payable through the component county medical society or the constituent state or territorial medical association, depending on the method adopted locally.

5. *Fellowship dues* are payable directly to the headquarters of the American Medical Association, 535 North Dearborn Street, Chicago 10, on receipt of the bill for such dues.

6. A dues paying, active member is eligible for Fellowship and may request such status by direct application to the Secretary of the American Medical Association. Applications for Fellowship are subject to approval by the Judicial Council of the Association.

7. Commissioned medical officers of the United States Army, the United States Navy, the United States Air Force or the United States Public Health Service, who have been nominated by the Surgeons General of the respective services, and the permanent medical officers of the Veterans Administration, who have been nominated by its Chief Medical Director, may become Service Fellows on approval of the Judicial Council. Service Fellows need not be members of the component county or constituent state or territorial associations or the American Medical Association and do not pay Fellowship dues. They do not receive any publication of the American Medical Association except by personal subscription. If a local medical society regulation permits, a Service Fellow may elect to become an active member of a component and constituent association and the American Medical Association, in which case he would pay the same membership dues as any other active member and receive a subscription to *The Journal of the American Medical Association.*

8. An active member of the American Medical Association may be excused from the payment of American Medical Association membership dues when it is deemed advisable by the Board of Trustees, provided that he is excused from the payment of full dues by his component society and constituent association.

The following may be excused in accordance with this provision: (a) members for whom the payment of dues would constitute a financial hardship as determined by their local medical societies; (b) members in actual training for not more than five years after graduation from medical school, and (c) members who have retired from active practice.

9. Active members of the American Medical Association are not excused from the payment of American Medical Association membership dues by virtue of their classification by their local societies as "honorary" members or because they are excused from the payment of local and state dues. Active members may be excused

(Continued on Page 221)

The first new product from our new laboratory is a parenteral B-complex particularly effective in secondary and nutritional anemias. It is a lyophilized preparation, therefore it is absolutely stable. It is offered in a multiple dose vial. No preservative is needed, so that it can be used intravenously.

"H-PLEX"

Each vial contains:

Thiamine Chloride	1500 mg.
Riboflavin	60 mg.
Pyridoxine HCL	150 mg.
Pantothenol equivalent to Calcium Pantothenate	300 mg.
Nicotinamide	3000 mg.

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780 W. 8 Mile Road, Ferndale 20, Mich.

Principals in a recent "It's Your Life" television broadcast over Detroit's WJBK-TV chat after the program. From left to right: Arch Walls, M.D., chairman of the MSMS Committee on Cinema and TV, Howard W. Mordue, Detroit, owner of the Medical Arts Pharmacy and sponsor of the show, and Jack Pickering, *Detroit Times* science writer, moderator of the program.

Arch Walls, M.D., Detroit, chairman of the Board of the American Academy of General Practice and representative of America's "family doctor," is interviewed by Jack Pickering, *Detroit Times* science writer and moderator of "It's Your Life," weekly MSMS television show on Station WJBK-TV, Detroit.

Television . . . Another Michigan "First"

One picture has often been said to equal a thousand words—but when the combination of voice and picture is used, the values are inestimable. Thus it is with television, the newest public relations medium being utilized by the Michigan State Medical Society to carry the story of Michigan's medical progress to the people.

With the introduction of the series "It's Your Life" televised over Detroit's WJBK-TV, channel 2, each Sunday afternoon from noon until twelve-thirty, the Society again takes to pioneering in a field heretofore strange to medical public relations. The program is made possible by the financial sponsorship of the Medical Arts Pharmacy of Detroit.

As originally set up, the program narrated by Jack Pickering, exacting science writer for the *Detroit Times,* was designed to disseminate news from the medical world through four facets dramatically presented: (1) scientific, (2) medical oddities, (3) organizational activity, and (4) socio-economic. To date the series has followed this pattern closely in presenting many subjects of interest to the general public. Already televised have been periods devoted to the heart, diabetes, cancer, crippled children, the family doctor, industrial medicine, legal medicine and arthritis, with leaders from the medical profession appearing as guest speakers.

Mr. Howard W. Mordue of the Medical Arts Pharmacy reports general excellent acceptance of this type of program. The format of the telecast is of the interview type with Mr. Pickering acting as moderator and interviewer. Miss Cyrilla Anderson of the Ruse-Urban Advertising Agency is Production Director. The half-hour show has a different setting each week which is tied in with the subject matter as closely as television studio facilities will permit. For example, the January 14 program, dealing with the subject of general practitioners, found its setting in an average kitchen set up in the studio. It was here that the general practitioner or family doctor was interviewed by the moderator. So it is that locales for each program correspond with the type of medical subject being treated.

Following the interview, Mr. Pickering takes time to report on questions which the viewing audience is invited to send in. The questions are answered by the doctor-guest of the afternoon from information available throughout the entire medical profession.

Another innovation in the "It's Your Life" series has been the use of films which have been produced by the MSMS and other organizations. An example was the screening of "Lucky Junior" immunization film on the TV show devoted to the institution of the family doctor. On other occasions, pictures from the Michigan Heart Association, the Michigan Crippled Children's Commission, the University of Michigan, et cetera, have been projected for the WJBK-TV audience.

An estimated 400,000 television receivers are in use in the Detroit area today, indicating a potential audience of more than 2,000,000 listeners (based on an estimated five viewers per TV set).

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The Only Form

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potency, purity, and lack of toxicity of *crystalline* vitamin B_{12} are clearly established.

Potency: Potency of this U.S.P. product is accurately determined by precise weight.

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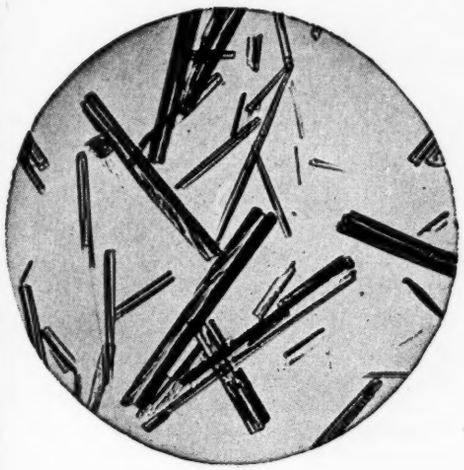
Efficacy: Produces, in microgram dosage, maximum hematologic and neurologic effects.

Tolerance: Extremely well tolerated; "no evidence of sensitivity" has been reported.

Toxicity Studies:

In recent pharmacologic investigations, extremely large doses of *crystalline* vitamin B_{12} (1,600 mg./Kg.) caused no toxic reactions in any of the animals treated. In contrast, 3 mg./Kg. of a "*concentrate*" caused fatal reactions in 100 per cent of the animals treated.

Merck—first to isolate and produce vitamin B_{12}—supplies Crystalline Vitamin B_{12} in saline solution under the trademark Cobione.* Your pharmacist stocks Cobione in 1 cc. ampuls containing 15 micrograms of crystalline vitamin B_{12}.



Crystalline Vitamin B_{12}

* *Cobione is the registered trade-mark of Merck & Co., Inc. for its brand of Crystalline Vitamin B_{12}.*

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Second Michigan Industrial Health Day

Wednesday, April 4, 1951

Rackham Memorial Building
100 Farnsworth Avenue
Detroit 12, Michigan

Sponsored by the Michigan Association of Industrial Physicians and Surgeons; Wayne University College of Medicine; Michigan State Medical Society's Committee on Industrial Health; Division of Industrial Health of the Michigan Health Dept.; Medical School of the University of Michigan; Michigan State Association of Industrial Nurses; the School of Public Health of the University of Michigan, and the Michigan Industrial Hygiene Society.

General Chairman for the Day
CARL HANNA, M.D., Detroit

PROGRAM

Morning Session

Presiding, CLIFFORD H. KEENE, M.D., Medical Director, Kaiser-Frazer Corp., Willow Run, Michigan.

A.M.

9:00 **Registration:** Rackham Memorial Bldg., Main Auditorium.

9:30 **"Introduction to the Day's Activities."**
CLIFFORD H. KEENE, M.D., Medical Director, Kaiser-Frazer Corp., Willow Run, Michigan.

9:40 **"New Developments in Industrial Surgery."**
HARRY E. MOCK, JR., M.D., Northwestern University College of Medicine, Department of Surgery, Chicago, Illinois.

10:00 **"Developments in Industrial Nursing."**
HELEN DE COURSEY, R.N., Kelsey Hayes Wheel Company, Detroit.

10:20 **"The Rising Toll of Obesity in Industry."** America's number one health problem.
ALFRED W. PENNINGTON, M.D., Medical Department, E. I. DuPont Co., Wilmington, Delaware.

10:40 **"Beryllium Poisoning."** The newest major occupational disease.
OSCAR A. SANDER, M.D., Marquette University College of Medicine, Milwaukee, Wisconsin.

11:00 **"International Industrial Medicine."** The United States is carrying Industrial Medicine to other lands.
ROBERT C. PAGE, M.D., General Medical Director, Standard Oil Co. of New Jersey, New York, N. Y.

11:45 **Discussion Leader:**
GORDON H. SCOTT, PH.D., Dean of Medical College, Wayne University, Detroit, Michigan.

P.M.

12:00-2:00 **Lunch Period:** (The dining-rooms of nearby Sheraton Hotel are readily accessible)

Afternoon Session

Presiding, HARLEY L. KRIEGER, M.D., Medical Director, Ford Motor Co., Dearborn, Michigan.

P.M.

1:30 **"Defenses Against Atomic Bombing."**
DONALD S. LEONARD, Commissioner, Michigan State Police, East Lansing, Michigan.

2:30 **Medical Aspects of Atomic Warfare**

1. **"Effects on Personnel"**
   GEORGE A. HARDIE, M.D., Washington, D. C., Assistant to the Chief (in charge of Industrial Health activities) Medical Branch, U. S. Atomic Energy Commission.
2. **"Management of Injuries"**
   CHARLES L. DUNHAM, M.D., Washington, D. C., Chief, Medical Branch, U. S. Atomic Energy Commission, Washington, D. C.
3. **"Specific Problems for the Industrial Physician"**
   JAMES H. STERNER, M.D., Rochester, N. Y., Medical Director, Eastman Kodak Company.

4:00 **Discussion Leader and Demonstrator of Radio Activity Measurement Equipment.**
HOMER S. MYERS, Vice President, Radioactive Products, Inc., Detroit, Michigan.

* * *

4:30 **Annual Business Meeting**—Michigan Association of Industrial Physicians and Surgeons.
Presiding, JOSEPH L. ZEMENS, M.D., President, Michigan Association of Industrial Physicians and Surgeons, Detroit, Michigan.

Evening Sessions

6:00 **Cocktails:** Available in the Sheraton Hotel.

7:00 **Annual Banquet (informal)**

Toastmaster—CLARENCE E. UMPHREY, M.D., Detroit, President, Michigan State Medical Society.

"The Industrial Worker's Better World."
DR. LILLIAN M. GILBRETH, Consulting Industrial Engineer, Montclair, New Jersey.

The Inauguration of the Twenty-Five Years Occupational Health Service Group, and the Presentation of Certificates. JOSEPH L. ZEMENS, M.D., presiding.

All members of the Michigan State Medical Society are cordially invited to attend.

CAMP Scientific Support Fitting Courses stress the importance not only of theory but also the practical application of knowledge in clinical "workshops." Above is shown a group of fitters being instructed in the practical fitting of a patient (pendulous figure type) with a Camp orthopedic back brace.

A BASIC CAMP CREDO

"Education before Sales"

"How skilled is the fitter who assumes the duty of carrying out my instructions when I prescribe a scientific support?"

Camp Scientific Supports are sold and fitted in reputable stores in your community.

Every physician is justified in asking that question.

This year will mark the 23rd annual series of Camp Scientific Support Fitting Courses under medical supervision. Beginning in New York City, they will be held in principal cities throughout the nation. Estimated enrollment will include over a thousand representatives from reliable stores in all parts of the country. These courses are conducted by our Training Director, Medical Director, Designer and a staff of registered nurses. In addition to the formal sessions the nurses are constantly instructing smaller groups and individuals in countless other cities.

Since 1929 we have trained more than 16,000 fitters in the United States and Canada. That is why Camp research, Camp design and Camp craftsmanship can provide the ultimate in service to the patient.

S. H. CAMP and COMPANY, JACKSON, MICHIGAN

World's Largest Manufacturers of Scientific Supports

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Military Medicine

ARMED FORCES MEDICAL POLICY COUNCIL ESTABLISHED BY DEFENSE DEPARTMENT

Establishment of an Armed Forces Medical Policy Council, as the principal agency of the Secretary of Defense in the field of medical and health services for the Armed Forces, was announced by the Secretary of Defense, General Marshall.

The new Council combines in one organization leading military and civilian medical and health authorities, under a civilian chairman.

Dr. Richard L. Meiling, who has been Director of the Office of Medical Services, Department of Defense, for the last fifteen months, has been named Chairman of the Armed Forces Medical Policy Council. He will serve also as principal adviser and assistant to the Secretary of Defense on medical and health matters.

Other members of the Council are Major General Raymond W. Bliss, Surgeon General of the Army; Rear Admiral Clifford A. Swanson, Surgeon General of the Navy; Major General Harry G. Armstrong, Surgeon General of the Air Force. They will serve with three civilians to be selected by the Secretary of Defense from among national authorities in medical and health fields.

The Council will develop basic medical and health policies for the Department of Defense and review those of the three military departments. It will collaborate closely with other defense agencies, such as the Joint Chiefs of Staff and the Munitions Boards, where medical considerations are involved.

Among the responsibilities of the Council are:

1. Developing and establishing uniform or joint programs in the Army, Navy and Air Force medical services, including joint utilization and cross-servicing of facilities;

2. Reviewing medical phases of budget estimates and legal proposals;

3. Initiating programs for standardization of various technical medical activities of the three services;

4. Representing the Secretary of Defense in dealing with other governmental and non-governmental agencies in medical and health matters of mutual interest; and

5. Developing close co-operation and mutual understanding between civilian and military medicine and the allied professions.

In the latter field, the three civilian members of the Council will insure active participation by civilian experts in developing broad medical and health plans for the Armed Forces.

Participation by the Surgeons General of the Army, Navy and Air Force will enable the Council to evaluate overall plans in relation to tactical and strategic missions of the three services and to consider operating problems presented by each.

The Armed Forces Medical Policy Council incorporates in a single organization the services previously performed by the following: Armed Forces Medical Advisory Committee (composed of civilian physicians and dentists under the Chairmanship of Charles P. Cooper); the Office of Medical Services and the Director of Medical Services, Department of Defense; and the Military Medical Advisory Committee (formed by the Director of Medical Services and composed of the Surgeons General of the Army, Navy and Air Force, the Chief Medical Director, Veterans Administration, and the Surgeon General, U. S. Public Health Service). These groups have been discontinued with the establishment of the Armed Forces Medical Policy Council.

DOCTOR DRAFT PROGRAM TO CONSIDER CIVILIAN NEEDS

Civilian needs will not be overlooked in the drafting of medical men, Selective Service promises.

The hundreds of Michigan doctors, dentists and veterinarians who must register January 15 will get a double screening before they are listed as eligible for military duty.

To guarantee that the draft will not endanger civilian needs, a voluntary advisory committee from the professions, as well as local draft board, will study registrations.

Col. Glenn B. Arnold, State draft director, said he will leave standards for selection entirely in the hands of this committee, which has scheduled a preliminary meeting in Detroit.

Dr. Grover C. Penberthy, of Detroit, is chairman. The other members are Dr. Albert E. Heustis, State health commissioner, and Dr. John O. Goodsell, Saginaw dentist.

Register January 15

Except for reservists, virtually all Michigan physicians, surgeons, dentists and veterinarians under 50 registered January 15.

Of 876 younger medical men who registered October 16, Col. Arnold said approximately 50 per cent have sought Army commissions. These were men who were trained at Government expense during the war or saw little service.

At least three times as many doctors were registered January 15, Col. Arnold predicted.

Although Washington has issued no doctor draft quota, Defense Department spokesmen have said about 13,000 will be needed to care for a projected military establishment of 3½ million men.

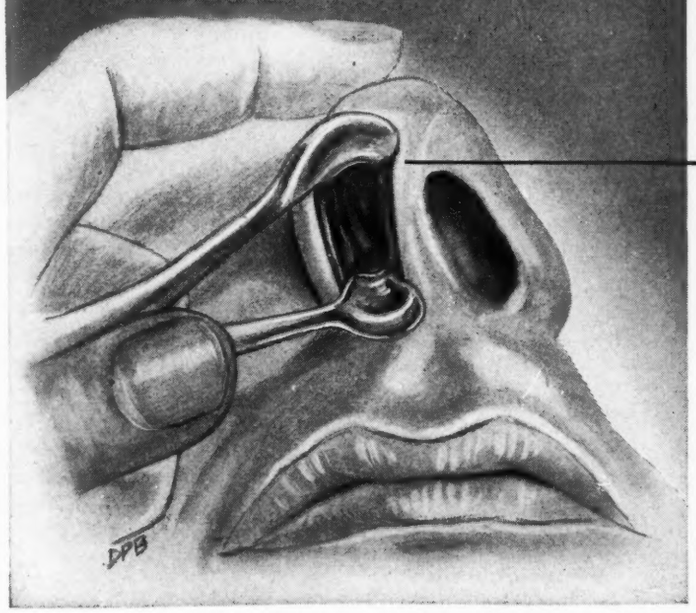
Deferment requests are coming from many communities which want their doctors to stay home, but Arnold said, "I don't know of one case in which the doctor himself has requested delay."

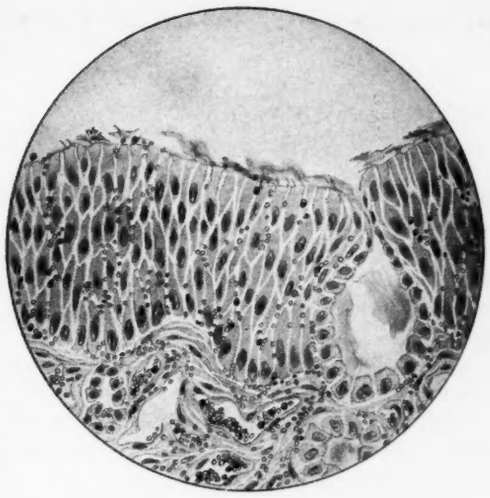
Deferment Policy

The advisory committee, knowing local needs, will

(Continued on Page 138)

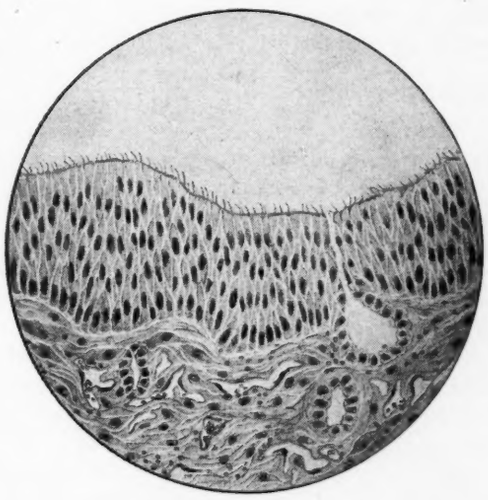
promotes
aeration . . . free drainage
in colds
. . . sinusitis





Nasal membrane showing increased leukocytes with denudation of cilia.

Normal appearing nasal epithelium.



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DOCTOR DRAFT PROGRAM

(Continued from Page 136)

make deferment or non-deferment recommendations to local draft boards for final decision.

The Wayne County Medical Society lists 2,250 members and 500 associated interns and resident physicians. During World War II one-third of its members were in service.

Membership in the Detroit District Dental Society totals 1,353, about half of them under 50.

Registration hours January 15 will be 8 a.m. to 5 p.m. Those required to register may do so with any draft board wherever they are.

Thus, for instance, a Detroit doctor making house calls in Oakland County could stop at the Royal Oak draft board. It then would send his records to the draft board having jurisdiction over him.

Wayne County Selective Service headquarters at 1050 Fort Street West houses seven draft board offices. If one is crowded, registrants may go to another. One other Wayne County board, No. 101, is located at 3022 Oakwood Boulevard, Melvindale.

Addresses and telephone numbers of draft boards are listed in telephone directories under "U. S. Government —Selective Service."

Registration Rules

Those unable to register January 15 for reasons such as illness must do so as soon thereafter as possible.

Not required to register are those already in the armed services or their reserves, men in the Public Health Service and the Coast and Geodetic Survey, those who received their training at Government expense and registered in October, and certain "draft-proof" classes of aliens.

Students who receive degrees in medicine, surgery, dentistry and veterinary medicine or surgery after January 15 must register within five days after receiving the degree.

Selective Service officials in Washington have announced there is no immediate intention of drafting any of the January 15 registrants.

But, while the doctors are signing up, 4,200 of their sons and younger relatives and friends will be answering Michigan's January draft call, with 4,500 more to answer in February.

Enlistments, too, have risen. More than 1,000 recruits signed up for the Army and Air Force during the holidays.

—*Detroit News,* January 7, 1951.

UNITED STATES-CANADA LIAISON TEAMS TO STANDARDIZE ARMY MEDICAL INSTRUCTION AND EQUIPMENT

Formation of liaison teams by the U. S. Army Medical Service and the Royal Canadian Army Medical Corps to further co-operation in standardizing military medical instruction and equipment of the two armies, was announced recently by the Department of the Army.

Colonel J. C. Van Valin, director of the department of tactics, techniques and logistics of the Medical Field Service Schools at Brooke Army Medical Center, Fort Sam Houston, Texas, heads the American team.

Colonel Van Valin visited Canada last month to inaugurate a series of personal interchanges between the two countries in furtherance of the work.

Lieutenant Colonel John Barr, commandant of the Royal Canadian Army Medical Corps School, will be a guest of Colonel Van Valin in Texas in the near future.

This liaison is expected to save time and money for the countries through the exchange of specific information in fields in which each is an acknowledged leader. For example, Canada will receive the benefit of American experience in the field of tropical medicine, while the United States will profit from Canadian research and development in arctic medicine, without costly duplicative efforts.

ARMY DEVELOPS PERFECT SUBSTITUTE FOR MORPHINE

Perfection of a new synthetic narcotic to replace morphine was announced January 5, 1951, by Dr. Henry K. Beecher, civilian consultant to the Army Surgeon General. Dr. Beecher is professor of research in anesthesia at the Medical School of Harvard University and chief of the Department of Anesthesia at Massachusetts General Hospital.

Just arrived from Korea where the new drug, methadone, was tested at the farthest forward evacuation hospital near Hamhung on hundreds of American and allied wounded, Dr. Beecher declared that the field tests verified the findings that have been made in thousands of postoperative cases during the last three years at Massachusetts General Hospital.

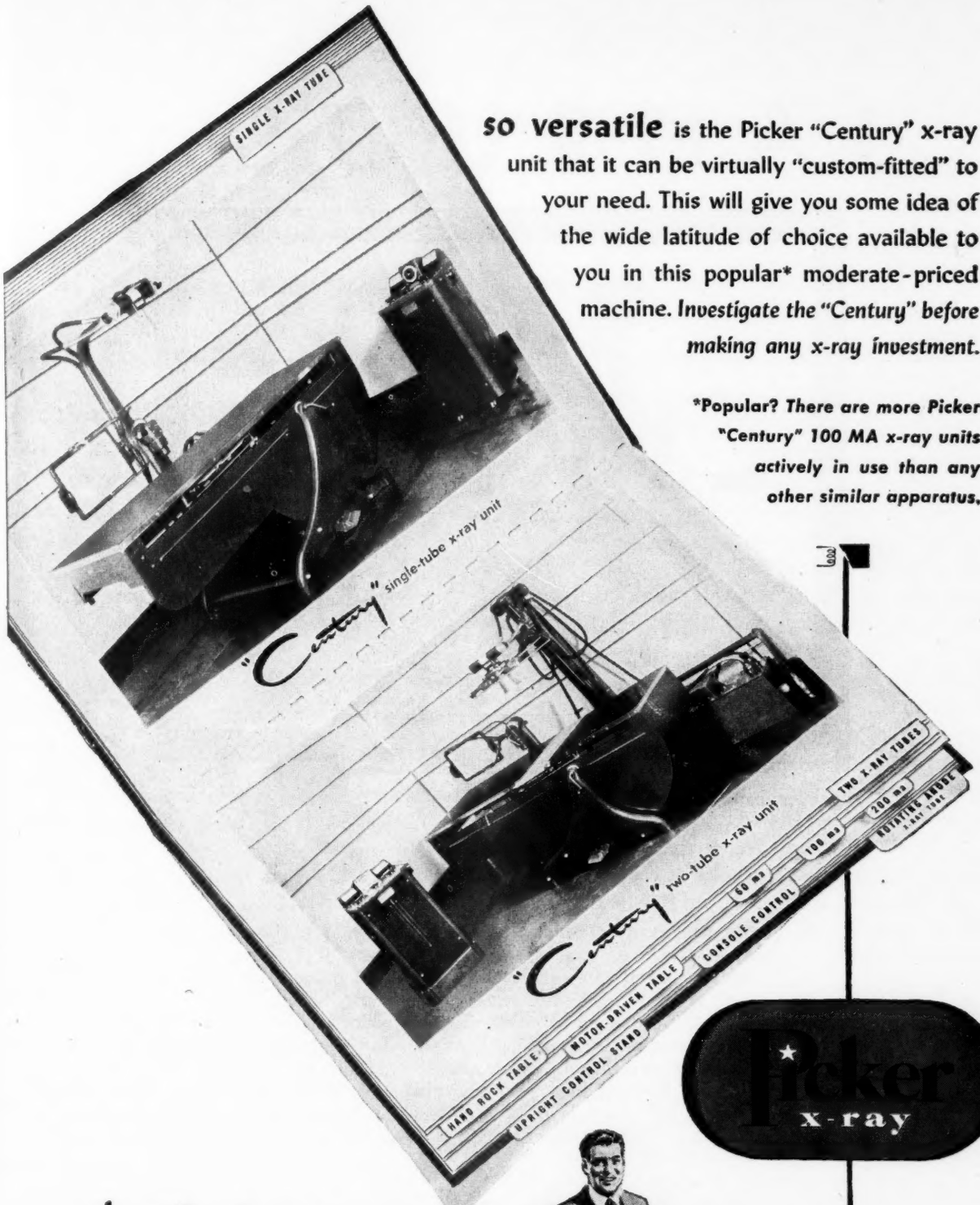
The story of methadone goes back to the day in 1945 when the Army took over the I. G. Farben plant in Germany. Preliminary work had been done there and the information turned over to the Research and Development Board of Army Medical Service. During the postwar years the Surgeon General's Office has worked closely with other interested groups to perfect the new synthetic which has the same effect as morphine, milligram for milligram, and which is made from nitriles derived from nitrogen and hydrocarbons.

Final validation has been made under the most rigid conditions and methadone can be used either as a substitute or interchangeable with morphine. The racemic form of methadone is now on the market and is being made by several manufacturers for the government. The form known as Levo-Iso is the best to date.

An interesting sidelight is that methadone may be less habit-forming and will probably be a great help in curing morphine addicts. Tests at the U. S. Public Health Service for addicts at Lexington, Kentucky, showed the drugs relieve the terrible sufferings of patients being taken off morphine.

While the pain-killing power is as great as that of morphine, its side effects are even better, since Levo-Iso produces far less nausea and vomiting. It has the same effect in depressing respiration as does morphine. While

(Continued on Page 222)



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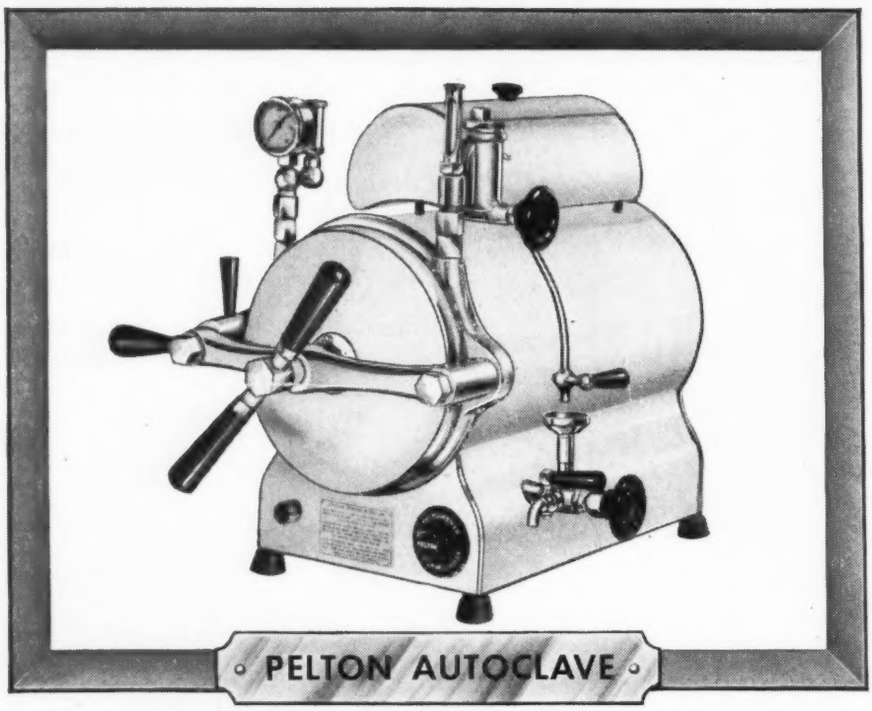

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The Treatment of Epilepsy

Frederic A. Gibbs, M.D.

Chicago, Illinois

THERE ARE over a million persons with epilepsy in the United States, for epilepsy is as common as diabetes. The advances of the past ten years have made it as treatable as diabetes. As in diabetes, the patient must be kept for long periods on maintenance medication. The anti-epileptic drugs he takes should be viewed as substitution therapy because they are necessary substitutes for chemical configurations which his injured brain does not produce. Most of the anti-epileptic drugs are potentially dangerous; therefore, close medical supervision is essential. Specialists in epilepsy are necessary, but they must work with and through the family doctor; epilepsy is too big to be handled properly by specialists alone.

What Is Epilepsy?

Anyone of any age can become an epileptic. Many persons who do not know what is the matter with them have epilepsy, for it can masquerade in many forms. Epilepsy is an irritative reaction to brain injury. It does not occur as a result of those severe brain injuries which destroy the nerve cells of the brain, but as a result of minor injuries which produce physiological rather than histological changes. However, a zone of mild injury may occur around an area of severe injury, so epilepsy may occur in association with severe injury, as for example, in cerebral palsy. Also, after severe injury, the brain cells which have not been mortally injured may, as they recover, go through an irritative stage. The physiological, intermediate (non-structural) injuries which cause epilepsy can be produced in many ways: by trauma, infections, disorders of cerebral blood supply, and by tumors. In fact, by almost anything which in greater force or concentration can produce gross or histological injury.

Heredity is not as important a factor in epilepsy as was once supposed. In general, the chance that an epileptic will have an epileptic child is only one in fifty, and the chance that a person with epilepsy will have a near relative with epilepsy is only one in fifty. The chance that anyone will have epilepsy is about one in one hundred.

Epilepsy can be called a "tumor of function," for it is associated with a gigantism of energy release within the nervous system; the seizure is an "explosion" in which normal spatial and temporal barriers are disregarded. Although the epileptic brain when looked at with the microscope commonly appears entirely normal, if looked at with the electroencephalograph, particularly during sleep, it usually appears very abnormal. The electroencephalograph reveals "explosive" electrical discharges and shows that they occur not only at the time of clinical seizures but also between seizures. These between seizure discharges, or sub-clinical discharges as they are called, are many times more numerous than those which are associated with clinical seizures. The electroencephalographic recording appears as "squiggles" on a paper tape, much like the recording of earthquakes by a seismograph. In the hands of an expert such evidence is reliable. It indicates a failure of the normal temporal and spatial regulation of energy release within the central nervous system, a failure which is as real as the failure of growth regulation in cancer.

Dr. Gibbs is associate professor of psychiatry, Department of Psychiatry, College of Medicine, University of Illinois, Chicago.

Presented at the eighty-fifth Annual Session of the Michigan State Medical Society at Detroit, Michigan, September 22, 1950.

Anti-epileptic Treatment

The medical treatment of epilepsy is directed at damping down the electrochemical explosions in the brain with suitable "extinguishers." Different types of drugs have to be used against different types of discharge. More than five new anti-epileptic substances have been discovered in the last ten years, bringing the total number to over ten, and making it possible to control epileptic seizures in 80 per cent of all persons with epilepsy.

As in other conditions, the results that are obtained with treatment depend upon the experience, competence, and diligence of the therapist, but anti-epileptic substances are no more difficult to use than the commonly employed antibiotics. The interested internist or general practitioner can treat epilepsy as well, and possibly better, than anyone else, for the modern treatment of epilepsy requires blood counts and liver tolerance tests to guard against special sensitivities.

Detailed Recommendations

Several types of epileptic discharge must be differentiated if treatment is to be maximally effective. These discharges correspond to the four chief types of epileptic seizure:

1. Convulsions, either focal or generalized, are associated with abnormally fast electrical discharges from the brain.

2. Trance-like attacks and confusional episodes usually originate from focal discharges in the anterior part of the temporal lobe.

3. Seizures consisting of attacks of rage or pain and sudden episodic symptoms referrable to the vegetative nervous system are usually unassociated with cortical abnormality during the attack, but during light sleep, when the deeper structures assume control of the cortex, positive-spike seizure discharges appear, indicating an epileptic type of disorder in the thalamic and hypothalamic centers.

4. Brief attacks of blankness and blinking, which are called petit mal seizures, are associated with a gallop type of dysrhythmia; i.e., a fast discharge followed by a slow wave, the two components alternating three times per second.

The first three of these types of disorder are best treated with Dilantin[1] and phenobarbital,[2] or Dilantin and Mesantoin.[3,4] Phenobarbital is the least toxic of these substances, and also the least potent. It may be used alone in mild cases and in young children, or when the patient's situation makes it permissible to experiment with minimal medication. In general, however, phenobarbital is used most effectively to supplement the more potent anticonvulsant action of Dilantin. The latter is commonly given to adults in a dose of 0.1 gm. three times a day with meals, and phenobarbital in a dose of 0.1 gm. at bedtime; thus, any drowsiness which develops from the phenobarbital will not be disadvantageous. Dilantin does not usually cause drowsiness at high dosage, but only double vision, dizziness, nystagmus, and incoordination. Such symptoms should not be considered true "toxic" symptoms. They are merely annoying side effects which develop at high dosage; they cease within a few days after the dosage has been decreased. About 19 per cent of children taking Dilantin develop hypertrophy of the gums. This is not due to vitamin C deficiency; the ingestion of large amounts of vitamin C does not prevent it. The hypertrophy will subside if the Dilantin is discontinued or the dosage reduced. However, in cases in which Dilantin controls the seizure better than any other substance, the patient may prefer to have the hypertrophic gum tissue removed periodically by a competent oral surgeon rather than relinquish the protection afforded by the Dilantin. A new anticonvulsant substance, called Nuvarone,[5] can be substituted for Dilantin, or added to the Dilantin. It is less potent than Dilantin, but can be taken in very high dosage because it has almost no side effects. No cases have been encountered in which Nuvarone has produced hypertrophy of the gums, nor does it produce urticaria such as occurs in rare cases with Dilantin. Mesantoin is usually held in reserve and used in resistant cases as a substitute for phenobarbital in combination with Dilantin or Nuvarone. The dosage of Mesantoin is started at 0.1 gm. per day and is increased to tolerance, which in adults is usually 0.3 gm. per day. Higher dosages are likely to cause drowsiness. In order to use maximal amounts of Mesantoin, the phenobarbital dosage usually has to be reduced or discontinued. Phenobarbital should not be stopped abruptly, however, but should be gradually reduced over a three- or four-day period; it is important to recognize that sudden withdrawal of phenobarbital is likely to precipitate convulsive seizures.

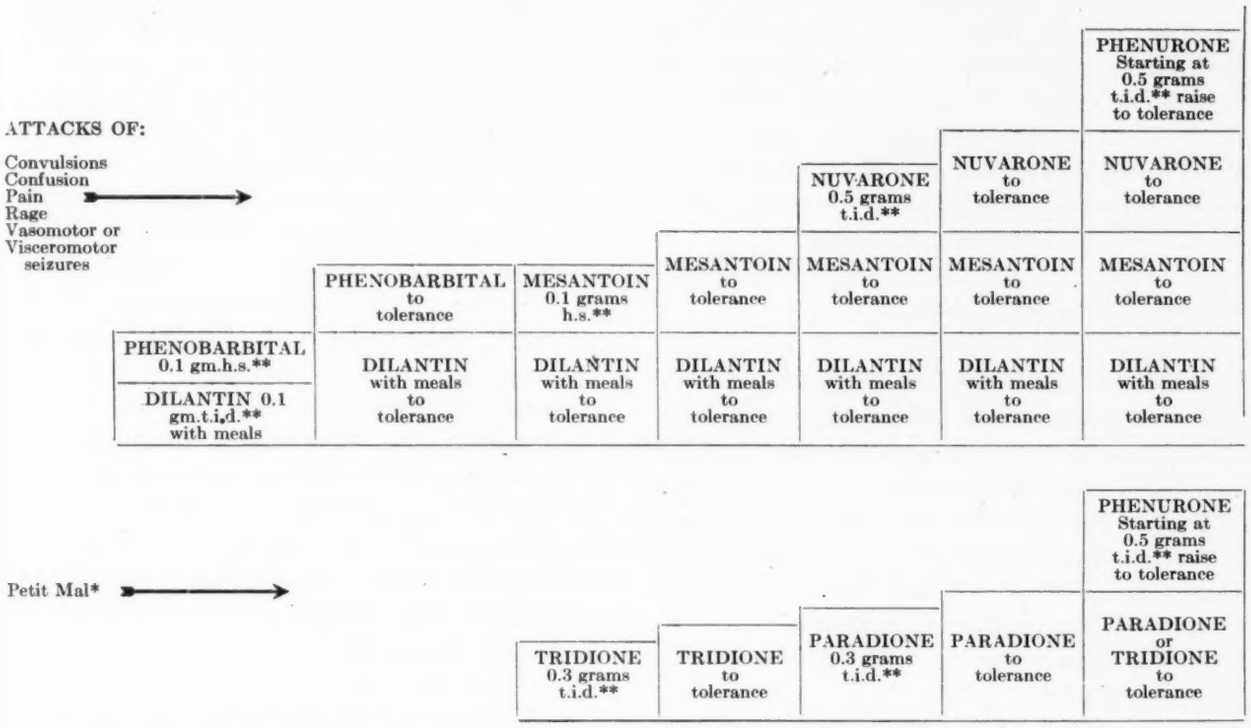
About 10 per cent of persons are sensitive to Mesantoin.[6] Regardless of the rate at which the dosage is increased, the sensitivity usually appears

a week or two after the start of Mesantoin therapy. The patient develops one or more of the following symptoms: fever, lymphadenopathy, scarlatiniform rash. If Mesantoin medication is continued in the face of such sensitivity reaction, blood damage is likely to develop. However, if the drug is discontinued, the entire reaction usually subsides in three or four days, without development of a blood dyscrasia. In most cases it is possible to reinstitute Mesantoin therapy after the reaction has subsided, though it is wise to do so cautiously by starting with small doses, and only after assurance has been obtained from blood counts that the blood picture is entirely normal.

Petit mal seizures are best treated with Tridione[7] and a near relative of Tridione, called Paradione.[8] Because in sensitive persons both of these substances cause blood damage (Tridione more commonly than Paradione), good practice requires a monthly white count to guard against leukopenia. If the white count falls below 3,000, Tridione or Paradione medication should be discontinued. In such cases, the white count usually returns to normal within two or three weeks.

When grand mal and petit mal occur in combination, the case is likely to be exceedingly difficult to treat because Dilantin tends to increase petit mal, whereas Tridione tends to increase grand mal seizures. However, in some cases, Dilantin and Tridione can be used together successfully, so the combination is worth trying. The danger of blood damage is increased by using Mesantoin and Tridione together, and this combination should be avoided.

For patients with both grand mal and petit mal seizures, and for all cases which are resistant to other types of medication, a new drug called Phenurone[9] has been found to be useful. It is the first general anti-epileptic substance. It does not produce drowsiness or other handicapping side effects, and is not particularly toxic. But, some persons are sensitive to this substance and react with serious liver damage. It must be used, therefore, with caution and is held in reserve and only used when less hazardous remedies have failed to control seizures. When the patient has personality disorders or psychiatric symptoms, Phenurone may cause a great intensification of these. The



In cases with a mixture of both petit mal seizures and grand mal convulsions, Dilantin and Mesantoin commonly increase the petit mal disorder and Tridione and Paradione increase the grand mal disorder. For such cases Phenurone is particularly effective.
*A petit mal siezure is not any mild seizure, but one characterized by a few seconds of impaired consciousness with one or more of the following: blinking eyes, nodding head, or sudden loss of posture.
**Use one-half to one-third of this dose as a starting dose for a child or infant.

Fig. 1.

exacerbation of psychiatric disorder usually subsides promptly, however, when the Phenurone is discontinued or the dosage reduced.

Phenurone is usually most effective when used in combination with other drugs. The starting dosage is 0.5 gm. three times a day, and it should be used to supplement that combination of anticonvulsants which have previously been found most effective in the patient under consideration. Once seizures are controlled, an effort can be made to simplify and improve the medication by eliminating (or decreasing the dosage of) any substance which is producing annoying side effects of which is considered hazardous.

Summary of Medical Treatment of Epilepsy

Use those substances that are likely to be effective against the particular type or types of seizure* that are present in the case under consideration (Fig. 1). Try the safest substance first. Increase the dosage to tolerance. If a given substance prevents seizures, retain it as maintenance medication. If partially effective, supplement it with the next safest substance; raise the dose to tolerance and proceed as before.

Full control of seizures often requires combinations** of drugs at high dosage. The idea is not to use as little medication as possible, but to stop the seizures with the least danger and with the minimum undesirable side effects.

In Figure 1 are charted the substances and starting doses of the most useful anti-epileptic remedies. These are shown diagramatically as blocks, built up to form a wall which restrains the force of the epileptic discharge.

Surgical Treatment of Epilepsy

When medical treatment does not control the seizures, or when the control is obtained only at the expense of a flare-up of psychiatric disorder, surgical removal of the epileptic focus should be considered. Surgery should be resorted to only when the patient is seriously handicapped by the epilepsy, and only when the epileptic focus lies in a brain area which can be surgically removed without the production of serious deficit symptoms.

Dr. Wilder Penfield, of Montreal, has been operating for many years to remove epileptic foci. More recently, Dr. Earl Walker, of Baltimore, has undertaken a direct surgical attack on the discharging area in post-traumatic cases. Dr. Percival Bailey, of Chicago, was the first neurosurgeon to perform anterior temporal lobe ablations for the treatment of psychomotor epilepsy. In order to demonstrate the focus in the majority of these persons, it is necessary to record the electroencephalogram during sleep. The operation is performed under pentothal anesthesia which produces a sleep-like state favorable to the appearance of the focus. Dr. John Green, of Phoenix, Arizona, who started his work with Dr. Bailey, is also performing this operation. Both of these surgeons have built up a series of twenty cases which have been carefully studied and followed over a period of at least a year. Both report that 50 per cent of the severe group of patients on whom they have operated are greatly improved. This figure corresponds roughly to the success ratio of Dr. Penfield and Dr. Walker in their operations, not only on temporal lobe epilepsy, but on focal epilepsy from other brain areas.

The Future

The treatment described here will be improved upon as new drugs and new surgical techniques are developed. The interested physician must, as always, keep his eyes and ears open for newly published information. The National Epilepsy League,† a laymen's organization, and the American League Against Epilepsy,§ a physicians' organization, are able and willing to provide information on all aspects of the problem of epilepsy. An annual, *Epilepsia,* is published by the International League Against Epilepsy. This journal contains original articles on epilepsy and also abstracts of all the pertinent literature.

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(Continued on Page 167)

*If possible, check the type of seizure by means of an electroencephalogram recorded during sleep and interpreted by a competent electroencephalographer.

**Tridione and Mesontoin should not be used together because of the increased risk of blood damage.

†Ben Gray, Executive Director, 130 North Wells Street, Chicago, Illinois.

§J. K. Merlis, M.D., Secretary, Cushing General Hospital, Framingham, Massachusetts.

Late Effects of Cerebral Birth Injury

Charles F. McKhann, M.D.,
W. Dean Belnap, M.D,. and Claude S. Beck, M.D.

Cleveland, Ohio

THE CONCENSUS has been that most of the serious childhood cerebral abnormalities are the result of hereditary or of intra-uterine developmental defects. Nevertheless, a recurring viewpoint has been that birth injury may be a major etiologic factor in these difficulties. Cole[2] has estimated that mental retardation, with or without associated convulsive disorders and spasticity, may be due, in as high as 70 per cent of cases in children, to brain injury at birth. Even the so-called "spontaneous deliveries" free of apparent complications have been associated with every known type of brain lesion. The quickly progressing and short labors, that prove so satisfactory to the mother, on the whole appear more dangerous for the infant. Russ and Strong[12] have shown that transient signs of minimal damage are not uncommon. Such signs include mild spasticity, nystagmus, opisthotonus and delayed initial respiration in the immediate neonatal period.

These injuries, traumatic or anoxic, are of significance in neonatal morbidity and mortality and may play a more important role than is generally suspected in etiology of later defects of physical and mental development.

Our studies indicate that minor and seemingly insignificant changes may later attain a serious character.

Anoxia

Schreiber[13] and Cole[2] suggest that the most important cause of birth injury is anoxia. Faber[6] supports this concept based on careful study of ninty-nine cases of brain injury. Thirty-five per cent of the injuries were a result of anoxia due to prenatal difficulty, especially premature separation of the placenta.

Outstanding as causes of anoxia in the paranatal period appear to be oversedation and excessive anesthesia during labor. Systemic disease in the mother, such as cardiac decompensation, pneumonia, and tuberculosis, may give rise to lowered oxygen tensions in the blood reaching the placenta. Although anoxia in the mother may be "anoxic," stagnant, anemic, or cytotoxic, the end result on the fetus is the same.

Clifford[1] has found that anoxia injury is the primary cause in 60 per cent of the deaths in full term and premature babies and at least that amount of morbidity among neonatal defectives.

Russ and Strong[12] observed that many infants were delivered by cesarean section with the idea in mind that the procedure would afford protection to the infant. In a large series of elective sections they found that this was not true. The infants appeared to be in good condition for several hours except for perhaps slight grunting respirations, then cyanosis and respiratory distress developed. Attacks were recurrent resulting either in death or marked anoxia. Postmortem findings revealed expansion of alveoli but the alveolar walls were observed to be covered with a pseudomembrane of amniotic fluid and its ectodermal contents.

Anoxia may cause damage to the respiratory center resulting in edema and an ensuing cycle of further depression.

Prolapse of the umbilical cord, occurring once in every 150 deliveries, according to Eastman,[4] is very difficult to treat and usually requires as rapid delivery as possible. Abnormal twisting or wrapping of the cord about the neck is not uncommon but cannot be corrected. Ehrenfest[5] points out the marked dangers of holding the head back in the final stages of delivery when the head is on the pelvic floor. This common offense of nurses, to prevent delivery until the physician arrives, is said to produce cord constriction and therefore marked anoxia.

Birth Trauma

In the course of normal and particularly of abnormal birth, the cranial contents may be traumatized without coincident damage to the skull.

Cephalo-pelvic disproportion is one of the major causes of cerebral damage during the natal process. Excessive molding in one diameter frequently results in dural tearing and therefore intracranial hemorrhage. Reduction in circulation may give

From the Departments of Pediatrics and Surgery, Western Reserve University School of Medicine and the University Hospitals of Cleveland.

Presented at the eighty-fifth annual session of the Michigan State Medical Society, September 21, 1950, at Detroit, Michigan.

TABLE I. CLASSIFICATION OF CAUSE OF MENTAL RETARDATION, CONVULSIVE DISORDERS, OR CEREBRAL PALSY IN 412 CHILDREN, BASED ON HISTORY AND PHYSICAL EXAMINATION

	No. of Cases	% of Total
Birth injury (late prenatal and paranatal)	218	53
Hereditary disease including postnatal	17	4.1
Congenital defects—developmental anomalies	13	3.2
Mongolism	24	5.8
Postnatal injury	57	13.8
Unknown	76	18.4
Kernicterus	7	1.7

rise to anoxia which also predisposes to hemorrhage. Such pelvic abnormalities serve as indication for elective cesarean section.

Gross evidence of intracranial trauma is present in only about half of the postmortem examinations of infants dying as a result of prolonged, difficult, or precipitous labor. Denny-Brown et al[3] and Ward[14] explain the symptomatology on the basis of concussion where visible pathology is minimal and physiological alterations of the vasculature, respiration and basic neurological reflexes have occurred during life.

Subdural hematoma is a complication of traumatic birth that, if recognized in time, can often be remedied and its sequelae prevented. Ingraham[7] has reported that in a series of ninty-eight cases of subdural hematoma, twenty-eight could be traced back to the neonatal period.

Method of Evaluation

We have, in the past sixteen months, subjected to analysis 419 children with mental retardation, convulsive disorders and cerebral palsy, singly or in combination.

The children ranged in age from eight months to fourteen years. Special attention was given to obtaining a careful history. Thorough physical and neurological examinations followed. On the basis of history and physical examination a classification of probable diagnoses was made. In about one out of five cases there was insufficient evidence to support even a probable diagnosis, and those cases were classified as etiologically obscure. The classification is presented in Table I.

Over half of the patients had a story strongly suggestive of birth injury, while in about one out of six cases the difficulty could be traced to postnatal injury on a traumatic, infectious or degenerative basis. In only one out of six in our study did the findings suggest an hereditary or congenital defect as the cause of neurological difficulty. Mental retardation was found in 89 per cent, convulsive disorders in 47 per cent, and cerebral palsy in 42 per cent of the patients.

TABLE II. PNEUMOENCEPHALOGRAPHIC AND ELECTROENCEPHALOGRAPHIC FINDINGS IN THE 243 CASES

	No. of Cases	Cortical Atrophy %			Organic E.E.G. %
		Diffuse	Localized	Total %	
Birth Injury	172	79	21	87	89
Cause Unknown with Neonatal Cyanosis	24	76	17	81	88
Cause Unknown without Neonatal Cyanosis	21	51	15	56	69
Postnatal Injury	26	82	29	93	94

Excluding those of obviously severe idiocy, 172 cases of probable birth injury were studied by pneumoencephalography, electroencephalography and psychometric examination. Forty-five of the cases of undeterminable etiology and thirteen children with a diagnosis of postnatal injury also received this type of investigation. Pneumoencephalograms were examined for signs of generalized or localized cortical atrophy. Without some evidence of atrophy one could not assume that the brain had been normal up to the time of injury. An attempt was made by electroencephalography to ascertain the presence of so-called cerebral dysrhythmias on an "organic" basis. A marked delta dysrhythmia and a petit mal variant dysrhythmia were selected as probably indicative of cortical damage. Epileptogenic foci were deemed more definite evidence of cortical damage. Cerebral blood flow and cerebral metabolism studies were done in twenty-two cases of probable birth injury, eight patients with postnatal injury and four children with unknown cause of their pathology. This was done after the method described by McKhann, Beck and Belnap.[8]

A total of 87 per cent of patients in whom a diagnosis of probable birth injury could be made showed signs of either diffuse or localized cortical atrophy, and in several cases, both (Table II). It is interesting to note that a similarity of statistics is to be found between patients having a history of neonatal cyanosis without a history of definite birth injury and those with such a history. Perhaps just as important, however, is the observation that over half of the patients, in whom a diagnosis of birth injury could not be made by history or suspected by presence of neonatal cyanosis, had signs of cortical atrophy. The presence of postnatal

cyanosis suggests that even a larger percentage of patients than indicatd by birth history alone have a probable origin of their difficulty in birth injury. We are supported in this view by the close correlation between the x-ray findings and electroencephalographic results in cases definitely and presumptively due to birth injury. Moreover the analogy with observation in patients with postnatal injury is striking. More than nine out of ten cases of postnatal injury had signs of cortical atrophy and an associated severe dysrhythmia.

Cerebral blood flow studies showed a marked reduction of flow in c.c. per 100 grams of brain tissue per minute from an average of 72 in a control series of ten normal children to 43 c.c. per 100 grams of brain tissue per minute in the twenty-two children with a diagnosis of probable birth injury. In all but two cases the flow was subnormal in the above group, while seven of the eight children with postnatal brain injuries demonstrated the same findings. Although not a statistically significant series, two of the four cases in which etiology was not determined gave similar results. This marked reduction in total flow may be explained on the basis of gliosis associated with and subsequent to brain injury. Penfield[9] has shown a marked deficiency of capillary bed to exist in the presence of gliosis, thus resulting in a diminished circulation. We have been unable to find any reduction in blood flow with similar studies of five children with mongolism.

On the basis of the supporting evidence we assumed the probability of birth injury in the 172 cases. They have been broken down into prenatal and paranatal groups depending upon the time of possible onset of the trauma. The number of cases in each group and their percentage of the total have been tabulated. In Table IV are listed the probable causative and contributory factors in the prenatal period.

TABLE III. I.Q. DISTRIBUTION OF THE 171 CASES OF BIRTH INJURY AND 44 CASES OF UNKNOWN DIAGNOSIS

	30		30-50		50-70		70-90		90	
	No. of Cases	% of Total	No. of Cases	% of Total	No. of Cases	% of Total	No. of Cases	% of Total	No. of Cases	% of Total
Birth Injury	31	18.1	51	29.8	47	27.5	39	22.8	3	1.8
Unknown Causes	3	6.8	18	41	16	36.3	7	15.9	0	0

TABLE IV. PROBABLE CAUSATIVE AND CONTRIBUTORY FACTORS IN THE PRENATAL PERIOD

	No. of Cases	% of Total 172 Cases
Premature separation placenta	7	4
Placenta previa	5	3
Kernicterus	7	4
Prematurity	27	15.7
Oversized infant (greater than 3800 gms.)	6	3.5
Toxemia	9	5
Maternal illness (anoxia)	6	3.5

TABLE V. PROBABLE CAUSATIVE AND CONTRIBUTORY FACTORS IN THE PARANATAL PERIOD

	No. of Cases	% of Total 172 Cases
Prolonged labor	7	4
Prolonged and "heavy" anesthesia	10	6
Marked sedation	19	11
Induced labor (oxytocic)	5	3
Breech delivery	7	4
Cesarean section (elective and emergency)	14	8
Cord defects		
Prolapse	2	1
Holding back of head	17	10
Tight about neck	9	5
High forceps	5	3
Precipitous delivery	9	5

Although prematurity is mentioned as a prenatal factor, most of the difficulty contributing to brain injury in this group probably arose during the birth process and in the neonatal period as a result of anoxia secondary to poor control of respiration. In the active prenatal period placental separation ranked highest as a cause of injury. Toxemia of pregnancy and kernicterus, the resulting mental defects of which may be secondary to placental abnormalities, also ranked high. We found that oversize (over 3800 gm.) may have been a cause in six of our cases, and maternal illness resulting in anoxia, the cause in an equal number.

Table V lists the probable causation and contributory factors in the paranatal period.

Marked sedation and "heavy" anesthesia appeared as possible causes of 17 per cent of our birth injuries. The chief offender was morphine or morphine in combination with scopolomine. Second in prominence within our series was a story of the head being held back by the nurse or intern until the physician arrived. This is a common practice, and certainly if cerebral injury resulted frequently, the incidence of brain injury

TABLE VI. ELECTROENCEPHALOGRAM AND PSYCHOMETRIC FINDINGS IN 37 BEHAVIOR-PROBLEM CHILDREN

	No. of Cases	% of Total	Electroencephalogram Dysrhythmias	"Organic" Psychometrics
			%	%
Birth injury	13	36	84	65
Postnatal injury	3	8	100	66.6
Unknown	21	56	45	38
Total % having Electroencephalogram dysrhythmia = 65%				
Total % having "organic" psychometrics = 52%				

would be enormous. Nine of our fourteen cases with a story of a stormy neonatal course were a result of elective cesarean sections in which asphyxia may have been a primary cause. All five of the cases, in which labor was induced by the use of oxytocic drugs, experienced a precipitous labor and delivery. Noteworthy is the high incidence of focal atrophy and focal dysrhythmia among the several cases of high forceps delivery and precipitous delivery, suggesting that localized contusion or hemorrhage may have occurred.

Careful examination of the histories of the thirty-seven behavior-problem children revealed a significantly higher incidence of a story suggesting birth injury than is true of the normal population. Such a history was given for 36 per cent of the children and 8 per cent had a story of postnatal injury (Table VI).

These findings support those of Preston[10] who reviewed the histories of 132 children with anoxia at birth in relation to a long range follow-up. One-fourth of these were mentally retarded. The remainder were normal mentally but showed deviate behavior. Twenty per cent of the children had convulsive disorders. Many of his cases, as well as of our own, were feeding problems in the first year of life and were falsely classified as cases of "cyclic vomiting." Some children are hyperkinetic while others are apathetic, but particularly distressing is the inability of bright children to concentrate or co-operate.

Rosenfeld and Bradley,[11] in another series of 673 children referred for psychotherapy, found a 40 per cent incidence of abnormal electroencephalograms. The majority of those having a history of neonatal asphyxia showed a characteristic syndrome consisting of fluctuations in mood, hyperkinesis, short attention span, impulsiveness, fluctuant ability to recall previously learned material, and conspicuous difficulty with arithmetic.

As an aid to further diagnosis of birth injury we have tabulated the seven more common signs

TABLE VII. NEONATAL SIGNS IN ORDER OF THEIR OCCURRENCE BY HISTORY

	%
Poor sucking reflex	92
Poor rooting reflex	86
Lethargy	76
Cyanosis	68
Vomiting	64
Convulsions	47
Variation in body temperature	36

of abnormality encountered in the neonatal period. They have been listed by percentage and in the order of their frequency in Table VII. Particularly prominent was the failure to suck and the marked lethargy.

Summary

The evidence suggests that birth injuries may be a major factor in the causation of late cerebral disorders. Studied in retrospect, the evidence does not distinguish between cerebral birth injuries due to anoxia and those due to direct trauma. Cortical atrophy revealed in pneumoencephalograms is accepted as presumptive evidence that the brain was injured following complete formation. This finding, together with changes attributable to organic disease in the electroencephalographic tracings, was present in almost all patients with a known history of birth injury and in an unsuspectedly large number of other children in whom the history was obscure. Decreased cerebral blood flow was present in those cases studied in whom gliosis might have followed cerebral injury but was absent in children with a known developmental defect as exemplified by mongolism.

Behavior disorders in children without retardation, spasticity, or convulsions appear to be possible sequelae of milder degrees of cerebral injury at birth. The data suggest that at least one out of five birth injuries may have been due to preventable causes.

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Prevention of Behavior Problems in Pediatric Practice

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THE TREND in medical practice among children is toward increasing emphasis upon preventive care for the well child. There are several reasons for this development. One is that less time is required in private practice for the care of the sick child. The diarrheal diseases have largely been conquered and infant feeding has become so simplified that it no longer requires the specialized services of the "baby doctor." Immunization procedures have reduced the incidence of many of the communicable diseases, and the advent of the chemical drugs and antibiotics have provided such effective specific therapy against a wide variety of infections that the time-consuming complications, once common, have now practically disappeared.

According to the recent survey conducted by the American Academy of Pediatrics, pediatricians spend 54 per cent of their time in preventive pediatrics or in the care of the well child, and general practitioners, in the pediatric phase of their practices, spend approximately one-fourth of their time in a similar manner. This immediately raises the question as to what is meant by preventive care for the well child and what is included in such a program. Unfortunately, no standard exists which defines ideally or even practically the kind or amount of preventive care a child should receive. In the absence of a prescribed standard, it may be permissible to refer to the scope of health supervision commonly supplied by the pediatrician to his child patients. Customarily, infants and children are brought to his office for monthly examinations during the first year, every three months during the second year, twice a year from the second to the fifth year, and at yearly intervals throughout the remainder of the growing period. The purpose of such regular examinations is to appraise the adequacy of growth and development as shown by physical measurements and by mental and motor achievements. Failure to attain expected increments in any of these categories calls for an immediate and as exhaustive a search for the cause as may be necessary. Thus, disease in its incipiency may be detected, and corrective measures instituted before irreparable organic damage has resulted.

A careful physical examination is done at each examination, including tests for acuity of vision and hearing at or near the beginning of the school years. Simple laboratory tests of the blood and urine are performed, and tuberculin tests are made at three-year intervals. Immunization procedures are carried out at the proper age in infancy and appropriate "booster" injections are given in later childhood. The adequacy of the diet, including vitamines and mineral supplements to meet nutritional requirements as these vary with growth periods, is reviewed at each visit. Finally, the periodic health examination gives the physician an opportunity, which isn't always too well utilized at present, to educate parents about the behavior patterns which all normal children within reasonable variations exhibit as they develop and unfold in their emotional growth. Parent education in what to expect in the way of child behavior—what is normal and what is not—together with suggestions as to how to cope with each major situation as it arises should result in the prevention of later undesirable emotional maladjustment and incidentally to secure for the parents more satisfaction in the day-to-day living with children.

If parents are to obtain this type of service in rearing their children, the responsibility clearly rests with the child's physician—the general practitioner and the pediatrician. While child guidance clinics and child psychiatrists have increased greatly in number in recent years since the importance of mental health for children has emerged, nevertheless there are not enough of them and probably never will be to take on this type of service for all children. Their function is to continue with research in this relatively new field, to educate physicians and the laity, and to accept referrals from the general practitioners and pediatricians of the more seriously emotionally disturbed families. It is not suggested that general practitioners and pediatricians become psychiatrists, but it would seem necessary, if they are to offer parental guidance as part of their medical service, that they become more psychiatrically minded in the future than they have been in the past.

Dr. Arnold Gesell of Yale and many others have contributed much to a better understanding of the normal processes of growth and development in

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all its phases—physical, intellectual and emotional. They have pointed out that all normal children pass through much the same maturational sequences in their development from birth to adult life. This is easily grasped so far as physical and intellectual growth are concerned. Thus the infant sits before he stands, stands before he walks, and the child looks at pictures before he can read a book. To expect any different sequence of events would, even to parents, be ridiculous. But the behavior patterns of emotional development, while equally characteristic in the different age periods, are less obvious and therefore not so readily accepted. For instance, it is a little difficult for parents to be sanguine about such behavior as temper-tantrums, negativism, and curiosity about the way the opposite sex is constructed, especially when the latter leads to investigations with the neighbor's child. And when the five-year-old calls his mother an "old dummy" or tells her to "shut up," it takes a good deal of persuasion to convince her to ignore such language on the basis that that's the way five-year-olds behave and that it's but a passing phase.

Nevertheless, lack of parental understanding not infrequently leads to parent-child emotional conflicts through the well-intentioned but mistaken concept that such behavior must be nipped in the bud lest it persist into adult life. Too frequently such attempts only aggravate the situation, when with more understanding and wiser management the original objectionable behavior would normally have ceased. Herein, then, lies an opportunity for general practitioners and pediatricians to be of real service to their child patients and parents. Anticipating for and interpreting to parents the kind of behavior they may expect their children to exhibit in the various age periods through which they pass provides them with knowledge and confidence to manage their children fairly and at the same time to extract the utmost in satisfaction from the association.

Now I should like to illustrate what I have been saying by discussing some of the types of behavior encountered in the first two years of life. I shall limit my remarks to the first two years, first because I think it's a very important period for the establishment of good parent-child relationships, and second because it will use up all, if not more than, my allotted space. Let's start with the crying infant. Certainly for parents, especially with their first-born, crying is problem number one. Books on baby care and magazine articles have assured them that healthy babies sleep twenty out of the twenty-four hours in a day. No wonder they vision all sorts of horrible things wrong with their baby when it doesn't follow any such pattern! Well, why do infants cry, and what is meant by three months colic? Ask a group of doctors and you're likely to get a dozen different answers. One says it is due to swallowed air. Another says it's allergy to milk or orange juice or fish oil. Maybe the baby is hungry or the hole in the nipple is too small. Still another will maintain it's too much fat in the formula or the wrong kind of sugar or too much of it. The psychiatrically-minded physician may insist the baby lacks tender, loving care, while the practitioner who doesn't go for that stuff maintains the baby is just plain spoiled. One of my colleagues had been struggling somewhat unsuccessfully with a crying infant for some weeks. One day the mother asked him, "What makes babies cry?" to which he replied, " I only wish I knew." Some time later, she returned to his office and in his absence left word with his secretary to tell him that the answer to why babies cry is that they need more cream in their formulas. One of my patients, who became somewhat discouraged with me under similar circumstances, later informed me that the cause of her baby's crying had been discovered by another physician. "He has an enlarged thymus," she said. Obviously, there is no simple answer to the question of "why do babies cry?"

This was one of the first problems attacked by Dr. Aldrich when he went to Rochester, Minnesota. Fifty babies in the new-born nursery were observed day and night for eight days. Observations were kept on the total number of crying episodes, the duration of each crying period, the time of day when the crying occurred and, as nearly as possible, the cause of each crying episode was recorded. There was an average of eleven crying episodes per baby per twenty-four hours. The longest period was four hours and the shortest three-fourths of an hour with an average of two hours per baby per day. The peaks of the crying came at 6:00 p.m. and at 12:00 midnight when there was a minimum of nursing service available. In a subsequent study, Dr. Aldrich reported that adding additional personnel at these periods reduced the crying by 50 per cent. Thirty-five per cent of the babies cried because they were hungry, 10 per cent because they had soiled diapers, and

20 per cent because their diapers were wet. This left 35 per cent for which no apparent cause for the crying could be ascribed. Dr. Aldrich speculated that the changed environment from intra-uterine to extra-uterine existence may have played a part. Possible factors would be light, lack of warmth, noise, clothing, and the lack of the rhythmical rocking motion to which the infant had become accustomed in the mother's uterus. Most of us who conduct private practices would, I think, have said that babies cried very little in the nursery, but promptly began when they reached home. At least this is the time when the crying of the baby is brought to our attention. But apparently this is not the case, for in a similar study in homes, using the mothers as observers, there were only four daily episodes of crying compared to the eleven in the hospital.

What's to be done about the crying of infants? Aside from the usual measures of sedative drugs, changing formulas and the like, there are several possible answers. First of all, it seems to me important that the concept be grasped that crying in the infant in the first few months of life is a protective reflex designed by nature as an effective method of calling attention to his needs at a time when he lacks other means of making his wants known. It must be looked upon as a wise provision on the part of nature, for without it it is doubtful if the human race would have survived. As the infant matures and the need for this protective mechanism subsides, the crying reflex gradually disappears. The stimulus which calls forth the cry in the young infant may be minor and inconsequential or it may be of more major significance, such as hunger. At any rate, parents should be prewarned while the baby is still in the hospital that this is characteristic behavior of most infants in the first two or three months of life. Thus armed, they may be able to view with less concern and with more understanding the 3:00 a.m. whoops which are very likely to occur.

Helpful in the crying situation is the self-regulating feeding schedule, which has become popular in recent years and which seems to me to be far more sensible than the previous rigid calorie and clock regimen. I have used it for a number of years now, and very seldom have I found a mother who doesn't prefer the privilege of feeling free to feed her hungry infant at the time the signs are obviously present rather than letting the clock be the deciding factor. It's illogical to suppose that a dozen infants all weighing 7½ pounds as they leave the hospital are going to have identical food needs or that their hunger contractions are going to come at identical hours. Infants whose growth genes have set a pattern for a rapid growth and large size will obviously demand more food than those of smaller stature and less rapid growth. Similarly, active infants will consume more calories than those of a more placid disposition. Every pediatrician has classic examples of unusual infant behavior in his experience with the self-regulating schedule. I have a couple. One was a two-month-old breast fed infant who put herself on three meals a day, took eight ounces at each feeding, gained beautifully, and was a model of behavior. Another infant of three months of age cried incessantly. Bottle feedings were limited to six ounces, but were always completely consumed. The formula preparation was satisfactory. I suggested the mother let the infant have what it wished at each feeding. At the next visit a month later, I asked what had happened. The mother said the baby took two and one-half bottles or 20 oz. at the first feeding, then settled down to eight-ounce feedings and had been perfectly content from then on. Perhaps a word of caution should be proffered the mother when the self-regulatory schedule is being explained. Certainly it is not intended that the breast should be offered or a bottle popped into the baby's mouth every time he cries. But rather the mother should be instructed to use that interval between feedings which she finds best suited to her particular infant's feeding rhythm, whether it be three or four hours between feedings or at times even longer. The baby will still be on a schedule, but it will be one which the mother and baby have worked out between them.

Another innovation, largely in the blueprint stage at present, which has promise of contributing to the solution of the crying problem is the so-called "rooming-in" arrangement for the mother and baby during the hospital stay. It has many advantages and some disadvantages. Among the advantages is the better utilization of the nurse's time. Instead of running up and down the halls getting the baby to and from the mother's room six or eight times a day, she spends her time in teaching and helping each mother with the care of her baby. Since fathers are the only visitors permitted in the rooming-in plan, both parents, together, have an opportunity to gain some familiari-

ty with the behavior of a new-born baby before they have to go it alone at home. Psychologically, both mother and baby should fare better, in that the mother would have full opportunity to give expression to her maternal instincts from the outset. Breast feeding, now becoming a lost art, might be revived. In our experience, the chief disadvantage has been the inability of the occasional mother to get sufficient sleep because of the baby's crying. But what seems to be a disadvantage may in the end turn out to be an advantage in that the mother has had the experience of going through the baptism of her baby's crying and has learned from the nurses how to evaluate it.

So much for the crying infant. By the end of three months, most parents have become accustomed to the task of raising a baby, and the period of crying or "three months colic" has largely come to an end. The remainder of the first year is usually a pretty peaceful time and a pleasant experience. Only a few minor things arise to disturb the equanimity of the parents. One of these is thumb sucking, which is of such common occurrence in infants that it may be regarded as a normal behavior trait. Parents usually express the fear that the practice will permanently deform the jaws. A little time-out may well be taken to explain to parents that the habit children have of putting everything into their mouths may at one time have served a useful purpose. It is conceivable that in the ancient struggle for existence, life itself may have depended upon the chance that what was put in the mouth might have some nutritional value. At any rate, I much prefer some such explanation as this to the Freudian concept of sexual gratification. Parents can be assured that if the practice stops by four or five years of age, when it practically always does, simply because the child has matured sufficiently to put infantile methods of behavior behind him, the jaws will in the next five or six years of development resume their normal contours. A comparable example is seen in the spontaneous straightening of the legs by six or seven years of age when they were bowed or knock-kneed at two. The psychological effect of yanking the infant's thumb out of his mouth can be brought home rather sharply by suggesting to the mother that she yank the cigarette out of the mouth of her unsuspecting husband every time he starts to smoke.

Somewhere around six months of age most infants develop a fear of strangers. Mother is likely to be apologetic for her infant's behavior and explains that she has not had him out among people very much. Again she needs to be reassured that such an occurrence is a normal intelligence reaction which will disappear around ten or twelve months of age. Mentally deficient children are not able to differentiate between familiar features and those of strangers. If one is imaginative, it is not too difficult to speculate that "fear of strangers" is a protective reaction that at one time served a useful purpose. When danger threatened in the appearance of something unfamiliar such as a roaming forest animal in search of lunch, the lusty howl of the threatened infant quickly brought father with his stone ax to the rescue.

Along about the end of the first year infants develop the habit of body curiosity. They poke their fingers into their ears, into their navels, and girls into their vaginas while the boys handle their genitals. Sometimes the girls sit with one finger poked into the vagina while with the other they twist their hair or possibly suck a thumb. Mother doesn't mind the ear very much, although practically all mothers at one time or another request that the ears be examined. Nor does she object particularly to explorations of the navel with the examining finger, but she can no longer restrain herself when the curiosity extends to the genitals. It may or may not help to point out to her that so far as the baby is concerned there is no difference between his genitals and his big toe. The sex idea is in the adult mind, not in the infant's. The stage of body curiosity will pass whether she does anything about it or not, but it is best to ignore the whole thing.

But when the second year approaches, a new set of circumstances arises which makes the first year like a veritable millpond by comparison. Now cortical development has proceeded to the point where the infant is capable of having ideas of his own, and furthermore he has developed motor ability to enable him to attempt to put his ideas into effect. He is an individual in the family circle who has to be taken into account. Whether the family is to live in peace or turmoil depends to a great extent upon how situations are handled. To my way of thinking the second year is the most important of all the formative years. It is my practice to spend a half hour, sometime between the tenth and twelfth month, with the parents apprising them of what lies ahead.

The conversation goes something like this.

"You've had your easiest year. You could put the baby in his bed or in his play pen and he'd stay there. Feeding hasn't been much of a problem. But in the year ahead of you you're going to be confronted with an entirely different situation. It's a year when the baby will be forming many fundamental health habits or behavior attitudes. You'd like them to be good ones so you can live with him pleasantly, but whether he develops good attitudes of behavior or bad ones depends in large measure upon how you manage him. What are the behavior attitudes with which you'll be dealing? Well, they are fundamental ones of eating, training, sleeping, temper tantrums and play. Let's take up each one of them."

First there is eating (I continue to the parents). Sometime in the next few months your baby will probably begin to slow up in the zest with which he has always gone after his food. He may turn down his vegetables or his milk. What you do at this time may determine whether or not you have an eating problem on your hands for many years to come. If you do have an eating problem, the fault will be yours, for it can be avoided. Why does the baby slow up in the consumption of his food? If you will look at his growth chart you will notice that he gained some 14 to 15 pounds in weight his first year. During the second year he is going to gain only about 6 pounds and during the next succeeding three or four years he will gain only 4 to 5 pounds per year. Obviously it requires less food when growth is slow than when it is rapid. As he approaches the puberty spurt and growth again is rapid, he will again consume large quantities of food. If you attempt to poke into him the amount of food you may have in mind, when he isn't hungry and when he doesn't want it and doesn't need it, you'll have a feeding problem on your hands. You should never coax, urge or force him to eat a mouthful he doesn't want. Merely offer him the spoon and if he turns his head away put the spoon down entirely unconcernedly. Give him a few more chances, and if he still refuses, the meal is over. To eat when one is hungry is a pleasant experience, but to be forced to eat when one isn't hungry is unpleasant. It usually leads to conditioning against the spoon and to an emotional upset over the whole performance of being fed.

Soon now he'll make his first attempt to feed himself with his hands. His first attempts at self help should be encouraged—not discouraged by keeping his food out of his reach or by tying up his hands so you can have an unimpeded pathway to his mouth. Of course, it's messy! He may get the food in his hair or spill it on the floor. But with a little experience he'll improve, and before long he'll graduate to a spoon because it works better. By a year and a half of age he'll be doing a good job of feeding himself and from there on you should turn the business of eating entirely over to him. Many children get all the food they need in one or two main meals a day. Be satisfied with this and don't insist upon his eating all of the nice meal you've prepared for him three times a day. Remember too that children are notoriously dawdlers. Don't expect him to sit down to the table, tuck his napkin under his chin and go at the business of eating like an adult does. That's not the way children do. Give him ample time at his own table and chair from which he is free to make curiosity-satisfying excursions at his will. Sometimes, I think it is unfortunate that nature didn't equip children with the same instinct it did dogs to take a bite out of anyone who interferes while the meal is being eaten. I've gone into this eating habit in some detail because it is one of the commonest jams parents get themselves into. "My child won't eat" is the complaint I hear most often in my office in the pre-school age child. What you parents actually mean is "my child won't eat what I want him to" and your estimations are usually based upon adult standards.

Now let's talk about training. That's another bad situation you parents frequently get yourselves into. You go at it too early and too vigorously. You measure success by how many bowel movements and how many urinations you get in the toilet. Oftentimes the child becomes resentful at being put on the toilet so frequently, and if forced becomes conditioned against it and will have nothing more to do with the contraption until the unpleasant memory experience is forgotten. Real training is not possible until the child is sufficiently mature to instinctively want a place to deposit his stool and his urine. Several times I have persuaded mothers to make no attempt at bowel training until the child himself made the first overture. One mother was particularly willing to do this because she had had a horrible time with her first child. This time, the child was twenty-two months old when he began to say "go, go," went to the toilet by himself and within a

week was completely trained. When training is begun, the approach should not be to catch every stool or every urination, but rather to teach the child how people use toilet seats. For this purpose a nursery chair works better. If a toity seat on the adult toilet is used a stepladder should be provided. The child should be directed to go to the toilet seat as near to the time as possible when a bowel movement may be expected. He should then be told to get his pants off, and you, his mother, should assist as much or as little as is necessary. Then direct him to sit down, but have him do it himself. Show him where the toilet paper is and have him use it himself. Let him get off the toilet by himself and put his own pants on with whatever assistance is necessary. Contrast this with the usual procedure where the mother carries the child to the toilet, lays him down on the floor or a bed, takes off his pants herself, places him on the toilet, wipes him herself, lifts him off, puts his clothing back on, and then lets him go. Mother is beautifully trained, but the child has had no responsibility whatever. I have a number of children in my practice who at two years of age could go to the toilet entirely by themselves. I should probably add to this that I have no particular objection to mothers who wish to place their infants on the toilet seat at an earlier age in an attempt to "catch" the bowel movement. Oftentimes this succeeds very well, but there should be no illusion about calling it training. It's not. It's merely "catching" and should be abandoned at the first sign of objection on the infant's part.

Sleep disturbances are common between one and three years of age. Frequently these have their origin at a year or so of age when the child first learns to pull himself to his feet. Whereas, formerly, when put to bed, he was content to lie quietly, now, with his newly acquired ability, he pulls himself up, shakes the side of the bed vigorously and demands to be taken back into the family circle. If the mistake is made of complying with his wishes the first time, it may be expected that the performance will be repeated nightly and perhaps many times throughout the night. One poor woman brought her child to my office who had been up six and eight times every night for a solid year, and the habit had started under the exact circumstances described above. Occasionally, an infant is encountered who has never acquired a good sleeping habit. Usually these are infants who had "three months colic" and the faulty sleeping habit acquired at this time has simply continued.

The answer is not to be found in sleeping bags, restraining jackets or tying the child down in bed, but rather to teach him that once he is put to bed it is expected that he will stay there during the night. He should not be taken out to be fed, rocked or taken into bed with the parents, but on the other hand he should not be left alone to go into a frenzy of frustration and perhaps of fear over being left alone in a dark room with the door shut. Mother may come in, give him a pat and go out again. Dr. Spock advises that the mother tell him firmly to go to sleep, then leave him. Sometimes the use of a sedative drug, such as phenobarbital, may be given regularly for not longer than one week, in hopes of breaking up the undesirable sleeping pattern and establishing a new one.

Temper tantrums also have their beginning around the first year and are to be expected for a couple of years more. Children and adults have the same emotional setup, but it takes more of a stimulus, or should at least, to call forth a temper explosion in an adult. The infant gives rise to a temper tantrum when he becomes frustrated over something he is trying to accomplish and can't quite do it, or when he is restrained from carrying out some project he has in mind. The adult who has driven around the block half a dozen times in search of a parking spot, finally finds one and is just about to back in when a car to the rear dodges into his place, is very likely to have a temper tantrum, not unlike the child. The treatment in the case of the child, at least, is not to throw a bucket of cold water on him, to spank him, to shut him in a closet, or even to put him to bed, all of which but add to his emotional upset. Rather should he be ignored, or if the task he has been attempting to perform has proven too difficult, a friendly helping hand may be proffered.

The outcome to be avoided is the continuation of the temper tantrums beyond the age period when they normally would have ceased, because the child has found that shooting a temper tantrum is an effective attention-getting device.

Finally, I should like to discuss with you (I'm still talking to the mother or the parents) what to do with your child during his waking hours now that he has outgrown his pen. You have two choices, one to let him have the freedom of the house, and the other to give him a large pen,

preferably a room with a gate at the door, where everything is his to do with as he wishes. Some parents take the attitude that they are going to have everything in their home just as it was before the baby came, and that they are going to teach their child to leave things alone. This to me is a foolish position to take. Here's a year-old child with the whole world of things and of people before him about which he has to learn. His curiosity knows no bounds. How is he to be expected to know that a lamp will fall over if he pulls on the cord or that it cost forty dollars? And yet the parents want to put the responsibility upon his immature shoulders of leaving their treasures alone. If the child is given the free run of the house, the least they might do is to remove temptation by putting out of his reach those things which they do not wish him to handle. Even so there will need to be a constant conflict between the mother and child, with the result that the mother's "no" before long conveys very little meaning to the child because he has heard it so often. A far better arrangement, it seems to me, is to give the child a place to play downstairs where he can have frequent social contact with his mother, where he can play uninterruptedly, and where she can perform her household or other tasks in peace. In the afternoon the child is entitled to a tour of exploration about the house, so that his education will not be neglected. At the end of the day both mother and child should be in a better physical and emotional state than where each has been in the hair of the other the entire day.

If you can emerge at the end of the two-year period with your child feeding himself, going to the toilet by himself, with a good sleeping habit, not using temper tantrums as an attention-getting device, and with a good play habit, you may assure yourself that you have done a good job. The chances are very good that you will be living in peace and happiness with your child and thoroughly enjoying the experience. During the third year your child can learn to undress and dress himself with the exception of lacing his shoes. He can also learn to take his own bath. I would far rather the child did a poor job of bathing himself, yet doing it himself, than have you do a perfect job and do it yourself. Thus by the age of three your child can feed himself, go to the toilet by himself, undress and dress himself and bathe himself. In other words, he is almost entirely self-sufficient in his personal habits. But to secure this kind of habit training requires patient teaching on your part. Too often you mothers want to do everything for the child yourselves because you can do the task quicker and so be free to do something else. It will be better, however, if you take advantage of your child's developing capabilities and teach him to do things for himself when he has developed to the point where he is able. I am convinced that a child raised in this way has a far better start in life and will make a better adjustment in school than the child who expects his mother to do everything for him. (Thus ends the discourse.)

Parents need to understand that their role in the years of infancy and during the pre-school years ought to be that of a teacher rather than a dictator. Over-indulgence, over-protection and over-discipline are all to be avoided.

While discussion in this paper has been limited to some of the more common characteristic developmental behavior patterns observed in the first two years of life, it should be emphasized that succeeding age periods throughout childhood and adolescence have equally characteristic patterns of behavior. Medical care of the well child, today, as supplied by the general practitioner and pediatrician, should include parent education about expected behavior in the various age periods through which the child passes. The periodic preventive examinations provide a good opportunity for the imparting of such information.

MSMS

STATISTICS

Ralph Brubaker of the Los Angeles Sales Executive Club, has issued the following information:

1. 13½ million old customers have died.
2. Over 17 million marriages have taken place.
3. Over 30 million babies have been born.
4. Over one-third of all present families in the United States have been formed.
5. Out of the 140-odd million people in the United States today, 63 per cent do not remember World War 1.
6. Fifty-two per cent do not remember a Republican administration in the White House.
7. Forty-eight per cent do not remember what conditions were like before World War II.
8. Forty-four per cent are consciously experiencing for the first time a free market in which they can buy what they want from normal assortments.

Neurogenic Hypertension

Chemical Approaches to Its Amelioration

By Fredrick F. Yonkman, M.D.
Summit, New Jersey

IN 1935 HEYMANS[12] proposed that regional vasospasm might play an important role in the genesis of hypertension. This hypothesis had been favorably received by a few[9,27] almost from its inception, but only in recent years has his concept won rather general acceptance.[22,23]

One obvious approach to the problem of therapy, from a chemical point of view, would be that of ameliorating individually the effects of many of the hypertensive components cited above. But at first glance this would seem too impractical an approach to consider seriously. If sympathetic predominance, or let us say, marked sympathetic control of certain blood vessels to the point of vasospasm, be an important primary etiologic factor leading to the production of many of the chemical items cited (Fig. 1), why not approach the problem from the point of view of blocking such sympathetic predominance by effecting an adequate adrenergic blockade?

TABLE I. PRESSOR SUBSTANCES POSSIBLY RELATED TO HYPERTENSION*

Name	Source	Accessory Conditions	Chemical Nature	Pharmacologic Action	Obtained Pure	Found in Hypertension	Similarity so Hochdruckstoff
Proteins							
Renin	Kidney	Renal ischemia	Protein	Prolonged	No	Acute	Yes
VEM	Kidney	Renal ischemia and anoxia	Protein(?)	Prolonged	No	Yes	Unknown
Prolonged pressor subs.	Kidney and blood	Hypotension (renal ischemia)	Protein	Very prolonged	No	(?)	Unknown
Peptides							
Hypertensin	Globulin	Renin	Peptide	Acute	No	No	Yes
Pepsitensin	Globulin	Pepsin	Peptide	Acute	No	No	Yes(?)
Serotonin	Blood	Standing	Peptide	Acute	Yes(?)	No	Unknown
Amines							
"Amines"	Blood	Anoxia and ischemia	Amine	Acute	Yes	Yes	Probably
Norepinephrine	Tissue	Nervous stimuli	Amine	Acute	Yes	(?)	Yes(?)
Urosympathin	Urine	Nervous stimuli	Amines	Acute	No	Yes	Unknown
Von Euler's substance I	Blood and tissues	Nervous stimuli	Norepinephrine	Acute	No	No	Yes(?)
Victor's material	Kidney	Anaerobic autolysis	Tyramine(?)	Acute	No	No	Unknown
Pherentasin	Arterial blood	Hypertension (renal)	Aminopeptide (?)	Prolonged	No	Yes	Unknown
Nicotine bases							
Lockett's base	Urine and blood	Renal ischemia	Complex alkaloid	Acute	No	Experimental only	Unknown
Urohypertensin	Urine	Renal ischemia	Nicotine base(?)	Acute	No	Yes(?)	Unknown
Others							
Nephrin	Kidney	Renal ischemia	Unknown	Prolonged	No	Yes	Unknown
Desoxycorticosterone	Adrenal cortex	Salt and hypertension (?)	Steroid	Prolonged	Yes	Certain types (?)	Yes(?)

*List taken from literature. Where ? is shown, characteristic of material is in doubt. Chemical identification and pharmacology of most of these substances have been insufficiently studied.
From Schroeder, H. A. and Olsen, N. S., Advances in Chemistry Series, No. 2, p. 5, 1950.

The chemical substances which have been found to be associated with experimental and some clinical hypertensives are numerous, and they have been well tabulated by Schroeder in Table I.[22]

A glance at Figure 2 would indicate possible avenues of approach or points of attack for the production of such a blockade. Phenobarbital or other similar depressants may be of some value in dampening the effects of cerebral outflow to important sympathetic centers either in the hypothalamus or lower in the cephalo-spinal axis, resulting in a diminished insult to the blood vessel walls, particularly in the region of the kidney.

Presented at the eighty-fifth annual session of the Michigan State Medical Society at Detroit, Michigan, September 22, 1950.

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The blood vessels may be approached *directly* by the action of vasodilators such as the nitrites, for example, but these agents do not act by establishing an adrenergic blockade.

so, since it also blocks parasympathetic ganglia, leading to undesirable symptoms such as dysphagia and atony of the gastrointestinal tract and bladder. Furthermore, it is limited primarily to the intra-

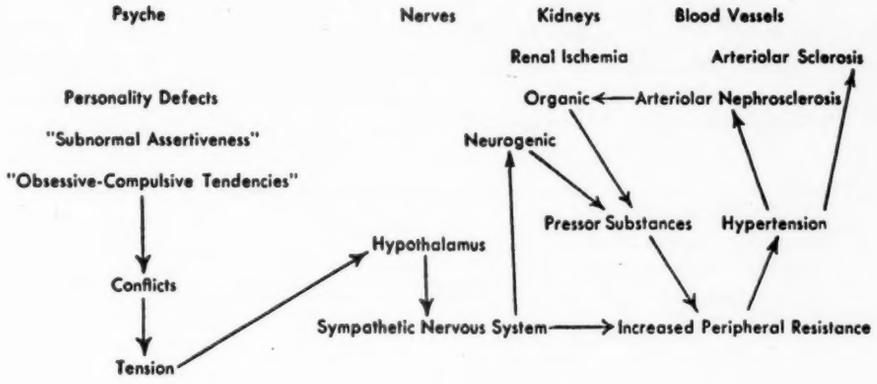

Fig. 1. Pathogenesis of psycyhoneurogenic hypertension. From Schroeder, H. A., and Olsen, N. S.: Advances in Chemistry Series, No. 2, p. 4, 1950.

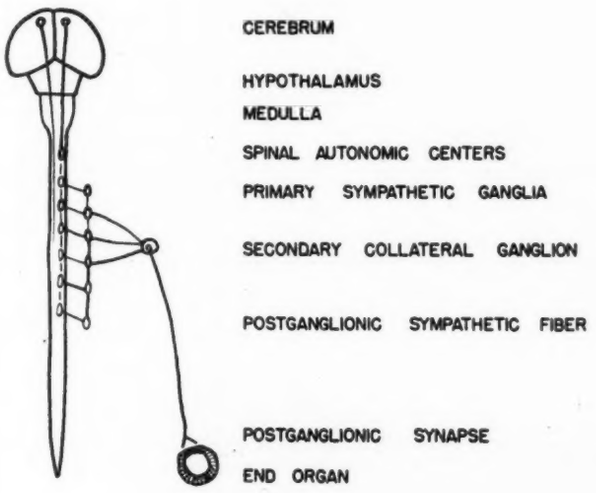

Fig. 2. Adrenergic control.

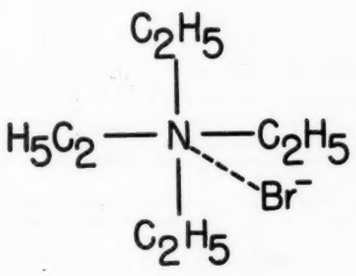

Fig. 3 *(left)*. Tetraethylammonium bromide.

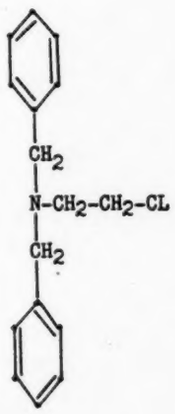

Fig. 4 *(right)*. Dibenamine. N,N-dibenzyl-β-chloroethylamine.

True blocking agents include Etamon (tetraethylammonium chloride), yohimbine, Dibenamine and some of its analogues, Priscoline (2-benzyl-imidazoline), Regitine, Benodaine, Dihydroergocornine and other dihydro derivatives of ergotoxine. Other drugs which act still differently are veratrum viride and some of its more concentrated preparations in the form of Veriloid, Vertavis and Veratrone, and a new compound, now in clinical trial, known as C-5968, which is a hydrazinophthalazine derivative.

Although Etamon (Fig. 3) is an effective sympathetic ganglionic blocker, it is not specifically

venous route of administration and therefore offers practical complications for everyday use.

Dibenamine (Fig. 4), although very effective as an adrenergic blocking agent,[26] likewise suffers from its markedly irritating capacity which limits it chiefly to intravenous usage at the present time. The hope has been expressed that some of the new congeners of Dibenamine may be more effective and less toxic after oral administration.

Priscoline (2-benzyl-imidazoline), although an effective vasodilator because of its combined histaminic and adrenergic blocking actions, has proved to be disappointing in the treatment of

neurogenic hypertension (Fig. 5). Not only are high doses required, which lead to an increased severity of side effects, but in the occasional patient who might exhibit a satisfactory hypotensive response to Priscoline, refractoriness to the drug appears within the relatively short time of a few weeks.

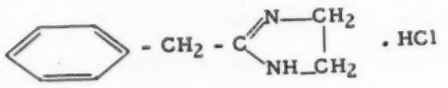

Fig. 5. Priscoline. 2-benzyl-imidazoline hydrochloride.

Some of the more recently introduced compounds in this field are the concentrated preparations of veratrum viride known as Veriloid, Veratrone and Vertavis. These are not blocking agents in the same sense that Etamon is for ganglia and Dibenamine and Priscoline are for adrenergic nerves, but they do cause a favorable degree of hypotension (Fig. 6)[25] in many patients through a different mechanism which seems to be the algebraic sum of these drugs' effects on the vagal nucleus, producing bradycardia, peripheral vasodilatation and slowing of the heart rate through some "anti-accelerator" effect, probably directly

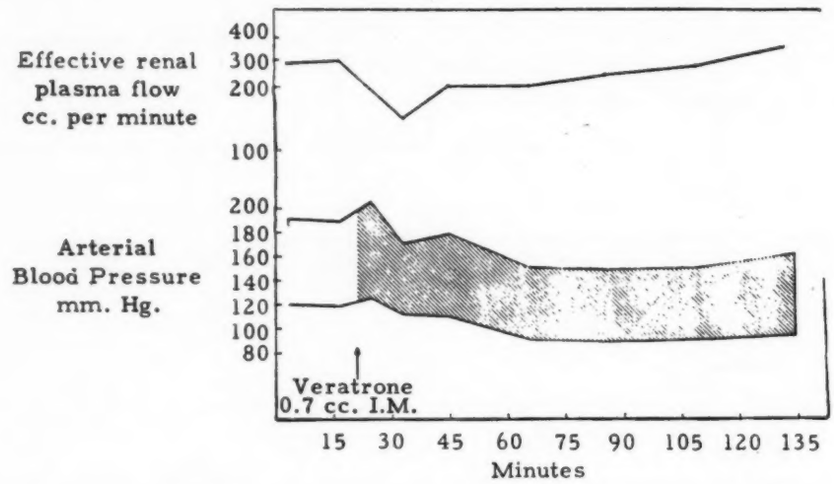

Fig. 6. From Wilkins, R. W.; Fries, E. D., and Stanton, J. R.: J.A.-M.A., 140:263, (May 21) 1949.

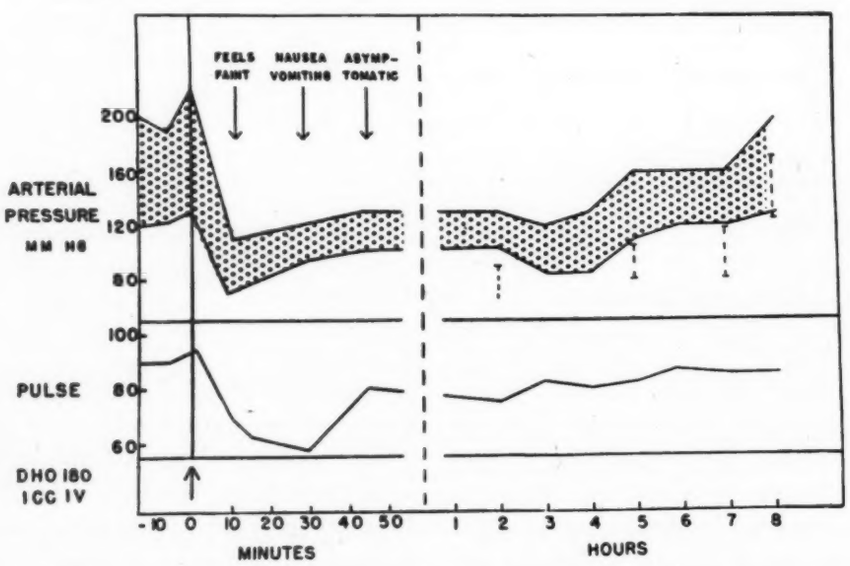

Fig. 7. The typical response to the intravenous administration of 0.5 mg. (1 c.c.) of dihydroergocornine (R.P., woman, aged twenty-three, with essential hypertension). The short vertical broken lines on the right half of the chart indicate blood pressure recordings made with the patient in the erect position. From Am. J. M. Sc., 216:164, (Aug.) 1948.

upon the pacemaker tissue, as Krayer[14] contends for Veratramine and Jervine. Most reports on the purified fractions are somewhat conservative since many patients who experience a satisfactory

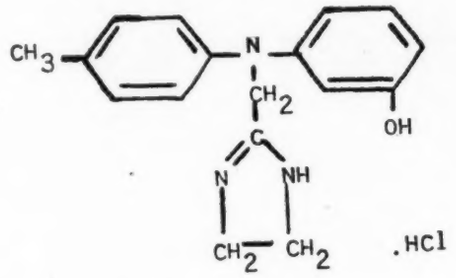

Fig. 8. C-7337. The hydrochloride of 2-[N-(p'-tolyl) - N - (m'-hydroxyphenyl)-aminomethyl]-imidazoline.

The dihydro derivatives of ergotoxine, namely Dihydroergocornine, Dihydroergocristine and Dihydroergokryptine, when given alone (Fig. 7)[5] or when combined in the form of CCK 179, seem to be quite effective as hypotensive agents. The status of this combination of compounds (Hydergin-Sandoz) has not been sufficiently clarified as yet, but there are indications that a certain degree

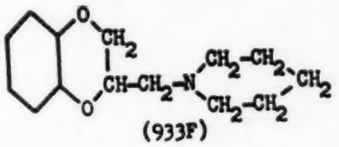

Fig. 9. Benodaine. 2-(1-piperidylmethyl)-1,4-benzodioxan.

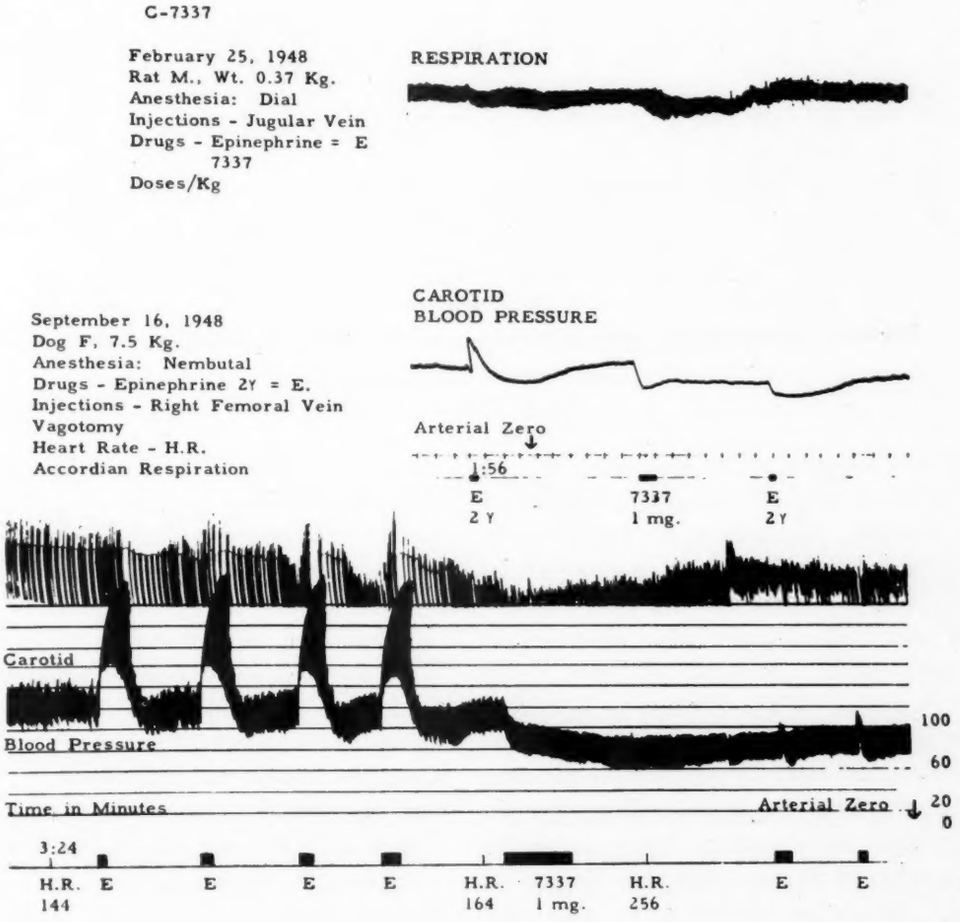

Fig. 10.

degree of hypotension under the influence of these drugs likewise suffer rather severe side reactions, particularly nausea and vomiting. If the latter could be obviated, these purified preparations of veratrum viride might offer real promise in the treatment of the neurogenic hypertensive patient.

Regitine (C-7337) (Fig. 8)[15] and Benodaine (Fig. 9)[6] are both rather potent adrenergic blocking substances. They would seem to be of special

of tolerance or refractoriness develops quite readily to these agents as it does to other adrenergic blocking drugs.

use in a limited field such as the detection and surgical removal of a pheochromocytoma. The inhibiting effects of Regitine on the vasoconstrictor activity of epinephrine[16] and norepinephrine[17,24] can be demonstrated readily (Fig. 10).

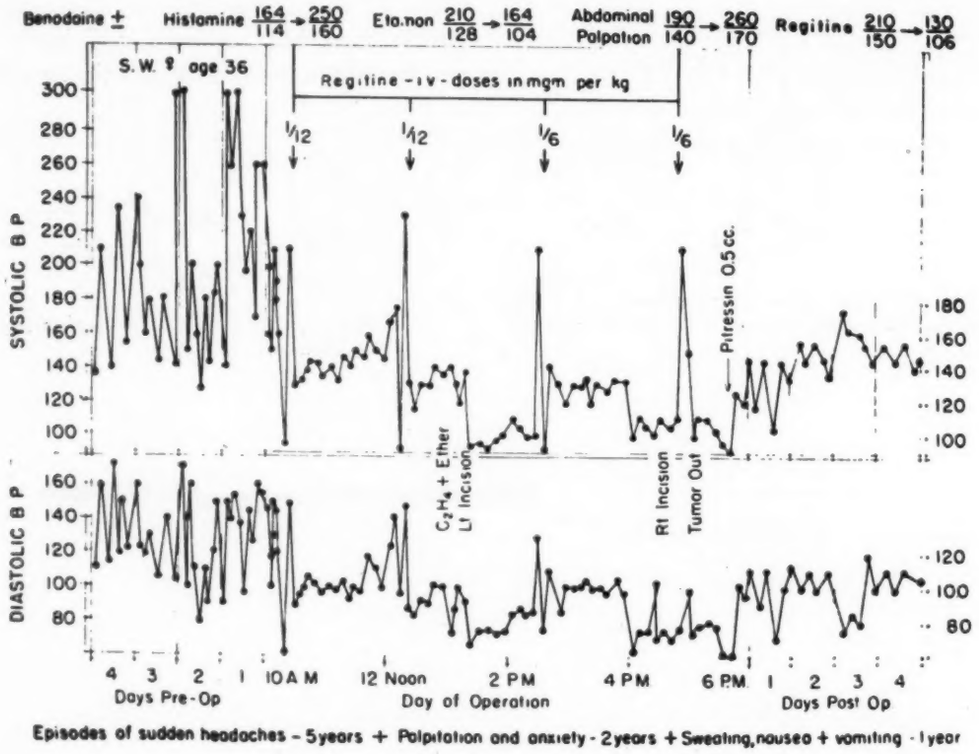

Fig. 11. Pheochromocytoma.

In the clinical subject afflicted with a pheochromocytoma, Regitine produces a marked drop in pressure, as indicated in Figure 11 as reported by Grimson.[7,10] The decreased blood pressure can be maintained fairly well at a desirable low level by repeated intravenous injections of very small amounts of Regitine. This preparation is devoid of irritating properties and so is readily administered intramuscularly and the clinical application of this feature has been exercised by Grimson. In his hands so small an amount as 5 mg. in one of his patients effected a very desirable degree of hypotension,[8] indicating, apparently, that the patient harbored a pheochromocytoma.

Because of the marked anti-adrenergic blockade effected by Regitine, one would feel inclined to anticipate that chronic administration of the drug would offer real promise in the treatment of the neurogenic hypertensive subject. Unfortunately this does not seem to be true. Although the drug, either parenterally or orally administered, does produce a definite and favorable degree of hypotension in many subjects, this effect, as with other adrenergic blocking agents, is not maintained in most instances. This is the opinion of several critical investigators in this field. The reason for such refractoriness is unknown. Theoretically it could be associated, at least in part, with the tachycardia which is frequently observed, in varying degrees, during the administration of Regitine. Grimson is of the opinion that Regitine is potentially the most valuable adrenergic blocking agent available today and that if some means could be found to control or regulate, if not completely eradicate, the associated tachycardia, there might be real hope for the treatment of neurogenic hypertension with this and some other added agent.

In an effort to circumvent this refractoriness to Regitine and other similarly acting agents, it seemed logical that a therapeutic regime should be so designed that there would be little if any opportunity for such a refractory state to develop. Such a regime would include the appropriate alternation of Regitine with some other type of hypotensive medicament which would produce a drop of blood pressure by a mechanism different from that produced by Regitine. Freis of Georgetown

University was the first to demonstrate successfully the logic of this approach, as indicated in Figure 12.[2,4]

Although these observations were made on but one patient whom Dr. Freis has thus far studied in this manner, they suggest a logical approach to the problem on the basis of different mechanisms at play while the patient is under the influence of various types of drugs. Before the refractoriness to Regitine, for example, had been established, the drug was withdrawn, but the desired hypotensive level was maintained by Veriloid acting apparently through a different mechanism. This technique of alternation indicates the necessity of approaching the treatment of the neurogenic hypertensive patient from more than one point of view. If the total picture represented in the neurogenic hypertensive subject could be modified, now at one point and then again at another and probably even at a third or fourth point without permitting the refractory state to develop at any point of attack, one might be more successful in offering some degree of relief to his patient.

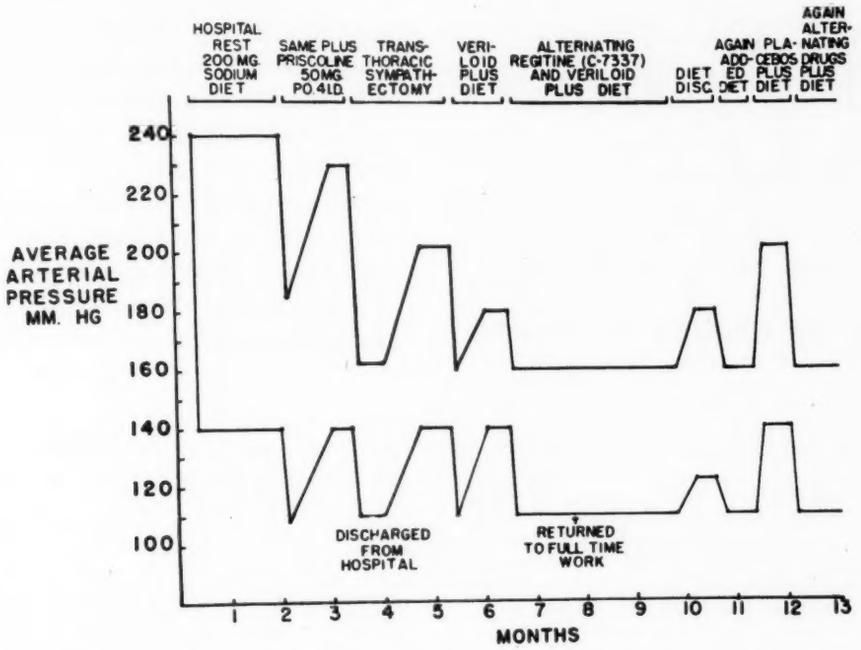

Fig. 12. Hypertension. From Freis, E. D.: Personal communication.

TABLE II. SLOWING EFFECT OF VERATRAMINE ON REGITINE-INDUCED TACHYCARDIA*

Time	Dose per kg.			Pulse Rate		
	Regitine	Veratramine	Route	Normal	After Regitine	After Veratramine
10:55				160		
10:59				160		
11:05	2.5 mg.		Intestine		160	
11:10					200	
11:17					200	
11:19		50γ	Intestine			200
11:27						176
11:32						184
11:34		50γ	Intestine			184
11:42						184
2:49						148

*Male Dog—Weight 12 kg.
Anesthetic—Sodium pentobarbital.

If, as previously suggested, tachycardia following treatment with Regitine, accounts in part for a restoration of pressure to near hypertensive levels (refractoriness?) it would seem most desirable to control this unwanted effect. We have studied various agents in our laboratory,[17a] and Table II illustrates the favorable effect of Veratramine in controlling Regitine-induced tachycardia in the anesthetized animal. Not only does Veratramine,

intravenously, *correct* this increased heart rate, but after oral administration the drug also can successfully prevent it. This antagonistic feature is now being studied clinically.

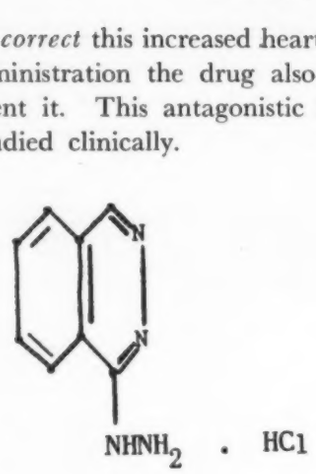

Fig. 13. C-5968. 1-hydrazino phthalazine hydrochloride.

action has been presented by Freis[3] by certain experiments in man.

Reubi has demonstrated the favorable effect of C-5968 on renal clearance[19,20] (Table III). Myers of Wayne University has confirmed this in some patients but has found it lacking in others.[13] Schroeder of St. Louis has seen some favorable effects of the drug in neurogenic hypertension,[21] and he has been sufficiently encouraged to pursue the problem.

One of the side reactions associated with C-5968, as reported earlier by Grimson,[8] is that of severe headaches. On the other hand, Myers, in a series of ten patients, reported that seldom was headache encountered and never to a degree requiring withdrawal of therapy or adjunctive therapy in the form of anodynes. We were of the opinion that if C-5968 were an effective vasodilator in man, as observed in the experimental animal, headache, if experienced, could well be due to a general vasodilatation of certain cerebral or centrally located vessels, akin to that associated with congestive migraine, and therefore the logical preventive or corrective agent might be ergotamine tartrate (Gynergen). This suspicion was amply confirmed by Prandoni,[18] who reports that when headache appeared it could be nicely controlled by extremely small amounts of ergotamine tartrate. Thus with the correction of this important complaint of headache, should it occur, it would seem that C-5968 would warrant extensive clinical trial, the more so because the drug can be readily administered by the oral route. To be sure, a refractoriness might well be developed to C-5968, as well as to Regitine,

TABLE III

Patient	Dose	Period No.	Period Durat.	Art. Press.	CPAH	CT	F.F.	R.
R.	20 mg.	1-3		200/105	429	128	0.299	1235
essential hypertension		4	31′	180/88	531	132	0.248	811
		5	29′	175/70	593	116	0.195	627
		6	31′	155/63	525	101	0.192	559
K.	12 mg.	1-3		180/100	432	86	0.200	1001
essential hypertension		4	22′	180/100	520	97	0.187	905
		5	12′	180/100	568	102	0.179	831
		6	16′	180/100	628	108	0.172	751
D.	10 mg.	1-3		170/80	409	71	0.173	943
essential hypertension		4	23′	170/75	501	73	0.146	749
		5	26′	155/70	487	68	0.140	657
		6	18′	160/55	555	74	0.134	524

Effects of i.v. injection of 5968 CIBA on arterial tension and renal hemodynamics. Arterial tension (A.P.) in mm Hg, renal blood flow (CPAH) in cc. plasma/min., glomerular filtrate (CT) in cc/min. The renal resistance (R) calculated according to Lamport's formula (13), corresponds to the sum of afferent and efferent resistances, expressed in mm Hg min. 10-4/cc. The filtered fraction (F.F.) is equal to CT/CPAH. From Reubi, F., Helv. Medica Acta, 16: 297, (Sept.) 1949.

We move now from the peripheral blocking area to a central point of attack, particularly in the region of the hypothalamus. There have been recent reports on the basic pharmacologic action of C-5968, known chemically as 1-hydrazinophthalazine[1,11] (Fig. 13).

Although this drug is partially adrenolytic, that is, antagonistic to the effects of adrenaline (epinephrine), relatively large doses of it are required to produce this type of action. It may have a direct effect upon the blood vessels, and in particular the renal vessels, but here this action seems to be variable. Its chief effect seems to be centered in the region of the hypothalamus since, in the experimental "spinal" animal, in which the cervical spinal tract had been severed, C-5968 had little if any activity whereas in the intact animal, the drug had a gradual, limited hypotensive effect. Evidence supporting this localization of

Veriloid, the dihydroergot compounds, et cetera, but here again nicety of judgment on the part of the internist in terms of properly selected and appropriately alternated therapy, as exercised by Freis, might prove to be advantageous.

The problem is complex and there obviously are many approaches to its solution. Some of these have been presented, although superficially, and it would seem that one of the most hopeful approaches may be that of properly applying the principle of adrenergic blockade, either through a central, ganglionic or peripheral point of attack with the hope that a labile neurogenic hypertension may not proceed to the point of a fixed nephrogenic hypertension and its disturbing sequelae.

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TREATMENT OF EPILEPSY

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Aneurysms and Arteriovenous Fistulas

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ARTERIAL ANEURYSMS have been a matter of considerable interest to the medical profession since the time of Galen and this has been true to perhaps even a greater degree in the case of arteriovenous fistulas since their recognition by William Hunter in the middle of the 18th Century. Aneurysms develop as the result of degenerative arterial disease, congenital malformation, infection and trauma. Though the other causes are occasionally responsible for the development of arteriovenous fistulas, most of them are the result of direct injury. One of the principal causes of arterial aneurysms is being brought under better control. The public campaign to bring the problem of syphilis out into the open and to emphasize the importance of early treatment, together with the development of effective therapeutic methods which require only a short period of treatment in contradistinction to the very long periods formerly necessary, gives promise of drastically reducing the incidence of this disease and of inadequately treated cases which may become complicated by the development of aneurysms and other late developments. On the other hand, no progress has as yet been made in the prevention of such degenerative arterial diseases as arteriosclerosis and medionecrosis and as the life-span of man is being prolonged, more individuals are suviving to develop manifestations of these disorders. The recurrence from time to time of large-scale warfare and our general inability to eliminate automobile, industrial and other accidents has served thus far to insure a small, but definite, supply of traumatic aneurysms and fistulas.

Largely by virtue of my having had the direction of one of the three army Vascular Centers during the last war, I have had an unusual opportunity to examine and treat large numbers of patients with these lesions. I have reported elsewhere in detail some of the experiences which my associates and I have had with this problem and certain experimental observations which those clinical experiences have prompted us to undertake.[1-23]* It is my purpose here to review in a brief manner some of the more important features of the subject.

The diagnosis of an arteriovenous fistula is rarely difficult. There is almost invariably a continuous thrill palpable over the region of the fistula and there is audible a continuous bruit. The presence of a continuous thrill and bruit in any location other than the precordial area is almost pathognomonic of an arteriovenous fistula, similar findings being present for all practical purposes in no other disorders except for certain cardiac or extracardiac shunts such as patent ductus arteriosus and for that uncommon and most intriguing condition which we term a venous hum. If the arteriovenous fistula is temporarily shut off by direct compression or by an effective tourniquet, a slowing of the pulse and an elevation of blood pressure occur characteristically. There may also be present other suggestive features such as an abnormal pulsation in the region of the fistula, unusually large superficial venous channels in the affected extremity, perhaps with visible arterial pulsation in some of them close to the fistula and, in the case of lesions present in childhood, overgrowth of the affected part.

The recognition of an arterial aneurysm also seldom presents any real difficulty, though the diagnosis is often not nearly so clear-cut as is the case with arteriovenous fistulas. Typically there is visible and palpable an abnormal pulsation, true expansile pulsation of the aneurysmal mass, and an associated systolic thrill and bruit. The thrill and bruit are, however, by no means constant, and when the aneurysm is deep within the body or covered by large muscle mass, or more particularly by a bony cage, the mass itself and its expansile pulsation may be neither visible nor palpable. Fortunately in such circumstances fluoroscopic and radiologic examination is most helpful. The chief factors which must be considered in the differential diagnosis are the systolic thrill and bruit, which not infrequently result from partial occlusion from external pressure or partial intrinsic narrowing of an artery, and the mass which, by virtue of

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*In these reports are bibliographies which include references to the more important relevant publications, and, for the sake of brevity, they will not be referred to in this review.

proximity to a large artery, exhibits a transmitted pulsation associated perhaps also with a thrill or bruit as a consequence of its partial compression of the adjacent vessel. Arteriography has an important place in the diagnosis and localization of intracranial aneurysms and may occasionally be necessary in the case of intrathoracic or intra-abdominal aneurysms, but in general it is not needed to establish or rule out the diagnosis of peripheral aneurysms or arteriovenous fistulas. Furthermore, it is not commonly necessary for the accurate localization of aneurysms and fistulas of the peripheral vessels, though it is occasionally most useful in this respect, especially in cases in which the collateral circulation is seemingly inadequate and in which the lesion appears to involve the main arterial stem but could conceivably involve instead an adjacent artery of relative unimportance in the circulation to the part.

The desirability of carrying out effective treatment once the diagnosis of aneurysm or arteriovenous fistula is established is based soundly upon the natural history of these lesions and upon their consequences. Though arterial aneurysms may be present for long periods of time without apparent harm, they are always potentially the source of considerable trouble and danger. They may become very painful; this is especially true in the case of aneurysms of the thoracic aorta and its main branches. As the result of compression or erosion, the aneurysm may bring about considerable dysfunction or even destruction of the organs adjacent to it. A subclavian, axillary, or brachial aneurysm may, for example, cause varying degrees of paralysis of the brachial plexus or of the nerves derived from it. An intrathoracic aneurysm may be associated with varying degrees of esophageal or trachial obstruction. Indeed, esophageal obstruction may be complete and the respiratory obstruction so severe as to bring about death itself. There may be marked erosion of adjacent bony structures, such as the vertebral bodies or the sternum or clavicle. Finally, there is always the possibility that the aneurysm may rupture and bring about rapid exodus from exsanguination.

While the effects of arterial aneurysms are principally local in nature, the harmful effects of arteriovenous fistulas, on the other hand, are principally general in character. I have previously mentioned the effect upon blood pressure and pulse and the changes which occur with occlusion of the fistula. The presence of a large arteriovenous fistula tends to bring about a progressive increase in blood volume. The most profound effect of the fistula is the increased burden of work which it imposes upon the heart. The cardiac output tends to be markedly increased. It is not uncommon, for example, to find in the dog that a femoral arteriovenous fistula will double the cardiac output. As a consequence, the heart increases in size, principally from dilatation but eventually from some hypertrophy as well. In studying the cardiac frontal area in a large series of young soldiers with peripheral arteriovenous fistulas of relatively short duration, my associates and I found the heart size to be increased in about half of them; a comparable percentage underwent a significant decrease in the size of the heart after operative obliteration of the arteriovenous fistula. If attention were directed only to those with fistulas of large size, the percentage with cardiac enlargement was greater; for example, a definite increase in the cardiac frontal area was present in about 85 per cent of those patients with fistulas involving the femoral vessels. The likelihood of early enlargement of the heart seems to be proportionate to the size of the artery involved, the size and age of the fistula, and the magnitude of the pulse and blood pressure response to temporary occlusion of the fistula. Furthermore, these changes seem to be related also to the location of the fistula with respect to whether it is caudad or cephalad to the heart—lesions situated caudad to the heart having the higher incidence of associated early cardiac enlargement. Cardiac dysfunction may proceed to the point of actual failure. It is an interesting fact that the slowing of the pulse, increase in blood pressure and decrease in cardiac output with occlusion of the fistula are evident with the very first beat of the heart. It is also an interesting observation that the change in blood pressure and cardiac output appears to be independent of the extrinsic innervation of the heart. A rare but serious complication of arteriovenous fistula is the development of subacute bacterial endarteritis. Though of less general concern, a fistula may also give rise to certain harmful local changes. In the growing child an arteriovenous fistula is commonly associated with hypertrophy and general overgrowth of the affected extremity. Though some time after the appearance of a fistula there generally is evidence suggesting increased circulation, there may be local ischemic changes soon after the formation of a fistula. In-

deed on occasions extensive gangrene may develop. In some instances there may persist a marked tendency to vasoconstriction with cyanosis, coldness, hyperhidrosis and sensitivity to cold. Furthermore, arteriovenous fistulas are quite often associated with saccular aneurysms, and though these aneurysms are frequently small, they may be large and may give rise to dysfunction from pressure upon adjacent structures.

It may be concluded then that it is desirable to forestall, if possible, the effects which may develop as a result of an aneurysm or arteriovenous fistula. The desirability of treatment, therefore, is evident, provided only that there is no great likelihood of spontaneous obliteration of such lesions. In a study based upon an analysis of 122 saccular arterial aneurysms and 245 arteriovenous fistulas, many of which were associated with one or more aneurysms, my associates and I found that a spontaneous cure, making operative treatment unnecessary, occurred in only 2 per cent of the arteriovenous fistulas and in 6.5 per cent of the arterial aneurysms. Though it is possible that a few additional instances of such spontaneous cure might have occurred had operative treatment been delayed indefinitely in the remaining cases, it seems unlikely that this development would have taken place often enough to have justified such delay. It is concluded that spontaneous obliteration of an arteriovenous fistula takes place so infrequently to make consideration of this possibility of little or no importance in reaching the decision as to the advisability of, or the most suitable time for, surgical treatment. In the case of saccular arterial aneurysms, satisfactory spontaneous cures take place a little more often, but again so infrequently that this possible occurrence should be given only very slight weight in considering the problem of treatment. In addition, it should be pointed out that such cures of the fusiform aneurysms which so commonly result from arterial disease are practically unknown.

In considering the problem of treatment of aneurysms and arteriovenous fistulas, the objective should be the cure of the lesion in such a manner as to subject the patient to the least possible risk of losing his life and to insure him of preservation of the best possible circulation and unimpaired function in the affected portion of the body. Safety to the patient demands competence on the part of the operator and familiarity with the special techniques of vascular dissection and repair. In general, unless one is dealing with one of those unusual circumstances in which it will be advisable to operate with a tourniquet, a safe approach implies that control of blood flow through the affected artery will be secured by first isolating the vessels proximal and distal to the lesion before approaching the lesion itself. Such a policy is fortunately quite compatible with a well-planned operative approach which can insure preservation of important adjacent structures such as nerves and which will result in no disfiguring or disabling scarring or contracture. Certain advances of this sort were possible because of the large number of patients who were available for treatment in special centers during the course of World War II. As examples may be cited the technique of safely approaching the vertebral vessels in their intraforaminal portion by careful removal of the overlying bony covering and the improved approaches to the popliteal vessels which obviate the necessity for transsecting the popliteal crease with the frequent postoperative development of contracture or ulceration.

The preservation of the best possible circulation to the part necessitates careful evaluation of the status of the collateral circulation before operation, if possible, and at the time of operation, as well as the use, when applicable, of those surgical techniques which maintain or restore the continuity of the affected artery. The testing of the collateral circulation is naturally dependent upon the location of the vascular lesion. Those relatively rare circumstances where an aneurysm or arteriovenous fistula involves the mesenteric vessels, for example, preclude any preoperative estimation of the adequacy of the collateral circulation. At operation, however, it would be important to occlude temporarily the affected segment of the vessel and to observe its effect upon the intestinal circulation before dividing the artery. A rather special problem is posed by intracranial or extracranial aneurysms and fistulas, the cure of which might necessitate ligation of the common or internal carotid artery. Thus far the best way of being certain of satisfactory collateral blood flow is to make sure that the patient can withstand prolonged compression of the affected carotid artery without neurological symptoms or signs. My associates and I have not found that a study of electroencephalograms made before, during and after such compression gives any information of value over and above what can be obtained from

the presence or absence of subjective or objective neurological alterations accompanying compression. By and large, if a patient can withstand compression of a carotid artery for half an hour without development of symptoms or signs, the artery can be divided with impunity.

In testing the collateral circulation to the extremities, very little information which can prove useful in evaluating the adequacy of the collateral circulation around the lesion or, in other words, the capacity of the limb to withstand ligation of the affected artery without serious reduction in circulation, can be obtained from a study of blood flow to the limb with the affected artery open. The foot, for example, may be warm, venous filling may be adequate, the pulses may be full and oscillametric studies may show excellent values without giving one any assurance whatsoever that the main artery to that extremity can be divided without disaster. Only in one sense do such studies help in evaluating the patient from this standpoint. If ischemic lesions are already present one must naturally be all the more concerned about the adequacy of collateral circulation, and if there is evidence of marked vasoconstriction in the affected extremity, and more particularly if this vasoconstriction tends to be persistent, one should be influenced in the direction of performing a sympathetic denervation before operation in order to be sure that an otherwise effectual collateral blood flow will not be reduced below the critical level by vasoconstriction. Testing of the collateral circulation before operation depends, for all practical purposes, principally upon certain observations which may be made with the involved artery occluded precisely at that level at which it is judged ligation would be carried out if this procedure were a necessary part of the operative cure of the vascular lesion. A number of such tests are of value but the most useful, I believe, is the Matas reactive hyperemia test. A convenient method of carrying out this test is to deprive the extremity of all blood flow by means of a constricting blood pressure cuff placed at a level somewhat below that of the vascular lesion. Sometime before the tourniquet is to be released, the aneurysm or the fistula must be obliterated by firm digital compression at the lowest level which will accomplish this result and this compression must be maintained until the test is over. It is wise to have a second observer check the effectiveness of this compression by making certain that any thrill or bruit which was previously present has been abolished. The cuff is now suddenly released and the distal portion of the extremity is observed. If a bright flush appears rapidly and extends to the distal portions of the extremity without delay during maintenance of the occlusion of the artery, and if there is no further improvement in the extent or intensity of the flush when the arterial compression is released, one may feel reasonably secure about the adequacy of the collateral circulation. If such a flush does not develop in less than two minutes, one should be very wary about proceeding with operation. This is a very useful test, but it does have certain necessary limitations; these are concerned with the accuracy or inaccuracy of the digital compression. If, for example, the compression occludes not only the parent artery which might have to be ligated but as well some collateral channels which might be preserved at the time of operation, the test would be indicative of a poorer collateral blood flow than actually exists. On the other hand, in the case of occlusion of the artery without occlusion of adjacent collateral vessels which communicate with the aneurysm or fistula in such a way as to necessitate their operative ligation, the test might indicate better collateral circulation than is actually present. It is very important in operating upon aneurysms or arteriovenous fistulas affecting the blood supply of extremities to drape the patient in such a way as to expose the hand or foot, and to make certain that its color and warmth is not seriously impaired by prolonged precise occlusion of the artery with a rubber-shod artery clamp.

If one is very careful to study the status of the collateral blood flow before and during operation, he will rarely ever have the disappointment of postoperative development of gangrene. Such an occurrence is, of course, still a very rare possibility even when the collateral circulation is adequate, being dependent upon subsequent thrombosis of important collateral channels. Though such thromboses are extraordinarily rare, the consequences are sufficiently grave to make rational the use for a period of time of anticoagulant therapy, provided that the operation has been accomplished with proper hemostasis and has not been carried out within one of the closed cavities where bleeding may occur without being recognized until the patient's life is endangered; this is the case with operations within the cranial, thoracic and peritoneal cavities. Under these circumstances, it

would seem wise, if anticoagulant therapy is to be used, to delay it for a number of hours after operation.

What can be done in those instances in which carefully performed preoperative tests are indicative of grossly inadequately collateral circulation? In the first place, there is some evidence to suggest that the longer the duration of an arteriovenous fistula the better the collateral circulation tends to become. Hence, some help may sometimes be forthcoming simply from waiting. There is little or no evidence to suggest, however, that collateral flow about an aneurysm commonly improves with the duration of the lesion. It has long been a practice, and certain observations substantiate its efficacy, to use intermittent prolonged occlusion of the affected artery. Such occlusion should be practiced whenever it is possible. Finally, sympathetic denervation has proved itself of very great usefulness in assuring maximal utilization of the collateral channels.

In the past it has generally been considered unwise to attempt to preserve or restore the continuity of the affected artery, and with the rarest exceptions, operators have felt content if the lesion could be extirpated and gangrene avoided. While the safe cure of the aneurysm or fistula with the avoidance of gangrene is the most important objective, it is nevertheless true that the limb may be preserved intact and yet with sufficient reduction in circulation so that a certain disability or annoyance follows. For example, there may be fairly severe intermittent claudication after division of the popliteal artery, even though circulation of the foot may be quite adequate at rest. After the ligation or division of an important artery, it is also possible to have apparently adequate circulation under ideal environmental circumstances but severe symptoms such as coldness and even numbness and paresis during exposure to cold weather. It seems to me desirable, therefore, to maintain the continuity of the affected artery or to restore it, whenever the artery is of real importance in the circulation of the extremity and whenever this procedure can be carried out with reasonable promise of its success. There are, of course, local circumstances which may prohibit such a procedure. For example, there may have already taken place thrombotic occlusion of the artery distal to the lesion. I believe, however, that my own personal experiences illustrate that the attitude of the operator is even more important than the precise condition of the involved vessels. In analyzing this factor, some years ago, I found that as long as I followed the practice of excluding from consideration for preservation or restoration of the artery all cases except those in which I could be rather certain that the anastomosis could be accomplished without undue difficulty and with utilization of quite normal arterial structures, such reparative measures were carried out in only 3 per cent of those instances of aneurysm or fistula involving the more important arterial stems. When a more aggressive attitude concerning this point was taken and such procedures were always carried out wherever they seemed to offer reasonable likelihood of success, the percentage was raised to 53.

The treatment of aneurysms of the aorta and of the origin of some of its major branches presents some special problems. Up to the present time attempts at treatment have been largely limited to three general methods. The first applies only to suitable cases of aneurysms of the abdominal aorta and involves the attempt to ligate, partially or completely, the aorta proximal to the lesion. The second attempts to bring about gradual sclerosis and constriction of the aneurysm or of the aorta proximal to it by envelopment with plastic materials which have an irritating sclerosing property. The first method has grave attendant dangers—principally because of the tendency for erosion and hemorrhage—and only a few successful applications have been reported. The second has apparently some real usefulness and is reasonably safe, though the sclerosis may, in rare instances, be progressive and lead to complete occlusion and gangrene.

The third method, that of internal wiring, has proved generally reliable and has the advantage of small risk and of applicability to aneurysms affecting all segments of the aorta. The benefit which follows seems to result from the effect of the coils of wire and the thrombosis which develops about them in reducing the size and expansibility of the sac and in increasing the thickness and strength of the wall of the aneurysm. Though it cannot be considered a curative measure, it yields rather gratifying results and occasionally it is followed by amazing improvement. Sometimes the sac becomes palpably firmer, smaller and pulsates less vigorously. Sometimes there occurs considerable relief from such symptoms as pain, dysphagia, or dyspnea which may have been present.

Experiences with the excision of aneurysms associated with coarctation of the aorta and restoration of aortic continuity by end-to-end suture or with interposition of a homologous graft, together with other experiences with vascular repair and transplantation, naturally raise the hope that certain aortic lesions may be treated by such curative surgical measures. It will be interesting to see whether such procedures will prove practically applicable.

Summary and Conclusions

The diagnosis of aneurysms and arteriovenous fistulas is generally not difficult. They are of considerable potential danger and have little likelihood of spontaneous cure. Their treatment is generally satisfactory.

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ANOTHER STUDY SHOWS ANTIHISTAMINICS INEFFECTIVE IN TREATMENT OF COLDS

Carefully controlled studies conducted at the University of Illinois College of Medicine and the Chicago College of Optometry "demonstrate that antihistaminic drugs do not prevent, abort, shorten, curtail, reduce or stop the common cold," according to Dr. Noah D. Fabricant of Chicago.

Dr. Fabricant, clinical assistant professor of otolaryngology at the university, reported these findings in the AMA *Archives of Otolaryngology*, published by the American Medical Association. He confirmed numerous similar studies in the United States and Great Britain.

"It was observed," he said, "that antihistaminic drugs are no more effective than placebos (harmless and inert pills) in aborting a cold and that there is no validity to the contention that antihistaminic drugs are more effective if taken within a short time after the start of a cold."

Dr. Fabricant's studies involved 139 students at the Chicago College of Optometry and seventy-four students at the University of Illinois College of Medicine. They were conducted through the winter and early spring of 1950.

Role of the Adrenal Cortex in Certain Peritoneal, Pleural and Pericardial Effusions

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IN THIS PAPER we propose to furnish a working hypothesis to explain the reason for certain peritoneal, pleural and pericardial effusions. These are found in Meigs' syndrome of ovarian fibroma, some cases of severe hypothyroidism and intestinal lipodystrophy (Whipple's disease). In addition we will discuss briefly the peritoneal involvement, sometimes seen in adrenal cortex deficiency of Addison's disease. We feel that the hypothesis will furnish means to the solution of the serosal layer involvement when present in these diseases. Biochemistry will probably furnish the answer, especially in view of the intense work being done on the pituitary and adrenal cortex hormones.

The hypothesis is based on the embryology of the adrenal cortex and the serosal peritoneum, pleura and pericardial origin. This, of course, includes the serous layer of the intestine.

"The adrenal cortex arises from the splanchnic mesoderm at the base of the dorsal mesentery near the cephalic pole of the mesonephros.

"The somatic and splanchic layers of the mesoderm form on their coelomic surfaces a single layer of squamous cells, termed the mesothelium. This is the covering layer of the pericardium, pleural, peritoneum, mesenteries, serous layer of the intestine, and lining of the vaginal sac in the scrotum" (Prentiss and Arey[14]).

The mesothelium also gives rise to the epithelium of most of the urogenital organs, to the striated muscles, both skeletal and cardiac.

There has been adequate evidence that the adrenal cortex influences the development and function of the striated muscles and gonads. However, the influence of the adrenal cortex on the serosal layers, the peritoneum, pleura and pericardium, has not been stressed so far as we know. It is this relationship of the adrenal cortex to the serosal layers that we wish to discuss.

From The Department of Internal Medicine, Harper Hospital, Detroit, Michigan.

A disease characterized by serosal layer involvement with ascites and pleural effusion is Meigs' syndrome. This syndrome is usually associated with an ovarian fibroma.

Furthermore, congenital malformations of the kidney are sometimes seen in this disease. It has long been known that congenital malformations of the kidneys are intimately related to congenital malformations of the adrenals. In addition these two conditions are frequently associated with malformations of the ovary or testicle.

It has been shown that malformations of the pituitary as seen in anencephalic fetuses are associated with malformations of the adrenal cortex. The literature on these associated malformations of the pituitary and adrenal cortex was reviewed several years ago.[12]

Meigs and Cass[9] said that no adequate explanation has been given to account for the phenomenon. Meigs said that Selye's alarm reaction was perhaps the most satisfactory explanation for the presence of fluid but it is not perfect. Even with small tumors of the ovary these transudates were present, so that pressure and cardiac impairment were no factors.

It is surprising how rapidly the transudate disappears after removal of the ovarian tumor. The diuresis is marked, and there apparently is a rapid change in the electrolyte metabolism. That the nervous system is involved in the postoperative reaction seems likely. One might postulate a sympathetic system stimulus to the hypothalamus, thence to the pituitary, and the latter in turn activating the mesodermal adrenal cortex.

In view of the known influence of the adrenal cortex on electrolyte and water metabolism, it seems quite likely that this gland is involved in Meigs' syndrome. There are excellent reviews of the literature by Hartman and Brownell[4] as well as by Gaunt, Birnie and Eversole.[3]

The latter author's review contains 283 references. We are quoting certain parts of their review as seem pertinent to the present discussion.

"The role of the adrenal cortex in electrolyte and water metabolism was the first of the important adrenal cortical functions clearly recognized when studies of cortical physiology began to take precise form in the early 1930's. Emphasis has been placed, however, upon the actions of cortical hormones on electrolyte metabolism, to which their actions on body water were generally considered as a secondary osmotic consequence. In particular, the fact that the cortical hormones cause sodium

retention, and hence water retention, led to the idea that their major action on water metholism was one of water conservation.

"Within recent years, on the other hand, it has become clear that a definite function of cortical hormones is to stimulate water diuresis. In a water-loaded animal this action can be a dramatic life-saving one. Under proper circumstances the water-eliminating effect of cortical hormones is of comparable magnitude to that of the water-conserving action of their physiological counterpart, the posterior pituitary antidiuretic hormone.

"The dilemma which presents itself is, therefore, that the cortical hormones may cause either water retention or water loss. This is not an unusual situation because many substances exert different effects depending upon the setting of the physiological stage on which they operate. Evidence now at hand is sufficient to permit an intelligible if not necessarily complete interpretation of these different aspects of adrenal cortical function."

The proven effect of the adrenal cortex on water and electrolyte metabolism makes the involvement of this gland seem likely, when in addition it has also been shown to have an influence on the function of the gonads and striated muscles including the specialized cardiac muscle.

Since these tissues are mesothelial derivatives it seems logical to assume that the other mesothelial tissues would also be involved and of course, this is true clinically as shown by the ascites and pleural effusion. At times the mesothelial pericardium is also involved with effusion.

Briefly summarized here are the tissues involved in this syndrome:

1. Adrenal cortex.
2. Renal cells.
3. Gonads (ovarian fibroma).
4. Peritoneum.
5. Pleura.
6. Pericardium.

In order to have such a hypothesis accepted it must be shown that the adrenal cortex is involved, and this must be done by chemical studies or by proven pathological changes in this gland. Certainly chemical studies such as excretion of 17-keto-steroids, 11-oxysteroids, sodium, potassium, eosinophil counts, and other studies should be carried out in this syndrome. In view of the recent results achieved with adrenocorticotrophic hormone and cortisone, studies of these products will also lead to an understanding of this syndrome.

Severe hypothyrodism may be associated with serous layer involvement. Means[8] called attention to the involvement of the serous cavities in untreated cases of myxedema. These cavities invariably contained fluid.

Horrell and Johnson[7] reported two cases of myxedema with pericardial effusion and concluded that this is a rare complication of myxedema heart disease. Responsible factors are unknown, but myocardial failure is felt to be a minor one. The pericardial fluid in both cases was studied for protein and cholesterol content and was less than those of the blood.

Case Report

Mrs. E. H., a fifty-seven-year-old white woman, was admitted to Harper Hospital, December 16, 1949, complaining of swelling of abdomen, gain in weight, loss of appetite, shortness of breath, ankle edema, generalized fatigue, all of which had begun six months prior to this admission.

Past History.—The patient had a thyroidectomy in 1929 for exophthalmic goiter with typical toxic symptoms; and because of a recurrence of these symptoms, this same operation was repeated in two stages in 1939. The pathological diagnosis was "primary exophthalmic goiter with areas of fibrosis with round cells simulating Riedel's struma."

The pathological report of the two specimens removed at the second operation was "primary exophthalmic goiter."

Family History.—One daughter died of tuberculous empyema, one son had pulmonary tuberculosis, and the patient's husband had one eye removed because of a tuberculous retinitis.

Catamenia.—The menstrual periods were always normal until ten years ago when they ceased.

Physical Examination.—The patient was a small emaciated appearing white female with bilateral exophthalmos. The skin was dry and scaling. The hair was thin but of moderate consistency. The fundi showed evidence of moderate arteriosclerotic changes. There was a thyroidectomy scar, but no palpable thyroid tissue. Both leaves of the diaphragm were elevated, and there were râles at the right base and evidence of an effusion at the left base. The heart was enlarged to the left on percussion. There was a systolic murmur in the aortic area. Blood pressure was 140 systolic, 90 diastolic. Pulse was 70. Rhythm was regular. The abdomen was enlarged and protuberant. A definite fluid wave was present. Pelvic and rectal examinations were essentially negative. There was some pitting edema of the ankles. Admission diagnosis was benign or malignant cyst of ovary with Meigs' syndrome complicated by arteriosclerosis and hypothyroidism.

Laboratory Work.—Blood count: erythrocytes 3,720,000, leukycytes 6,100, color index 0.89, hemoglobin 10.3

gm. (Wintrobe), 66 per cent. Differential count was normal. Nonprotein nitrogen was 25.3 mg., fasting blood sugar .084 per cent, total proteins 6.52 gm., albumin 3.37 gm., globulin 3.15 gm., ratio 1.07:1. Cephalin flocculation was at twenty-four hours, 2-plus; at forty-eight hours, 3-plus. The urine was negative except for a trace of albumin and a few white blood cells. X-ray of the chest showed elevation of both leaves of the diaphragm, evidence of a left-sided pleural effusion and an enlarged heart. A flat plate of the abdomen was read as showing evidence of arteriosclerosis and ascites. Two electrocardiograms were read as showing "serious myocardial damage."

The patient was given two transfusions and vitamins. An exploratory laparotomy was performed on December 19, 1949. There was approximately 10 liters of straw-colored ascitic fluid in the abdomen. The uterus was normal in size but retroverted. There were several small firm miliary-like lesions on the serosal surface of the uterus and tubes and one large white area (1.5 cm. diameter) on the under surface of the liver. The rest of the abdominal organs were normal. Microscopically the lesions proved to be calcified plaques of fibrous tissue and fibrosis of tube plications. The patient made an uneventful recovery and was discharged on December 31, 1949.

She was readmitted on February 2, 1950, because of reaccumulation of ascitic fluid and decreasing visual acuity.

Physical examination on this admission showed essentially the same findings as found on December 16, 1949, except that patient seemed more lethargic, her skin was drier and scaling. The hair was coarse. There was a left-sided pleural effusion. Her heart was large, and heart tones distant. The ascites was massive and the patient at this time had a 4-plus pitting ankle edema. The impression was that the patient had a severe degree of hypothyroidism complicated by ascites, pleural and pericardial effusion and arteriosclerosis.

Laboratory Work.—Blood count: erythrocytes 4,210.-000, leukocytes 5,800, differential count normal, hemoglobin 11 gm., 72 per cent. Color index was 0.85. Urine showed 1-plus albumin, 20 to 25 white blood cells, 15 to 20 hyaline casts. Nonprotein nitrogen was 29.0 mg., blood calcium 8.77 mg. per cent, albumin 3.45 gm., globulin 2.25 gm., A:G ratio 1.5:1.

Basal metabolism was reported as being unable to compute because oxygen consumption was too low for the T scale used. Blood cholesterol was 273.9 mg. A repeat nonprotein nitrogen was 27.7 mg. Serum potassium was 16.06 mg., serum sodium 364.70 mg.

Patient was put on bed rest and a low salt diet. She was started on .03 gm. (½ gr.) of thyroid substance which was gradually increased to .12 gm. (2 gr.) per day. Mercuhydrin was given and also vitamins. Two abdominal paracenteses were performed. The first one was on February 3, 1950, at which time 11,000 c.c. of straw-colored fluid was removed, and six days later 4,000 c.c. was removed. Her vision was better, her skin and hair began to become less dry, and for the first time in many years she began to perspire. A basal metabolism the twenty-fifth day after admission was minus 14 per cent.

During her stay in the hospital the heart size decreased, the pleural effusion cleared up and most of the ascitic fluid was gone. The patient weight 133 pounds on admission and 98 pounds when discharged March 3, 1950. She has since continued her remarkable improvement to date (August 23, 1950) and now has been free of ascites and all evidence of pleural effusion for five months.

It is, of course, problematical whether the adrenal cortex played a part in the production of the ascites and hydrothorax. That it was not due to myocardial insufficiency is shown by the fact that thyroid produced a marked improvement in her general condition as well as a disappearance of the serous fluid. It would have been helpful in determining whether the 17-ketosteroids and the 11-oxysteroids were decreased. Also an eosinophil count followed by an injection of adrenocorticotrophic hormone would have added to the diagnosis.

That the adrenal cortex is involved in severe hypothyroidism is shown by pathological studies. Furthermore, it has been proven that the pituitary is involved in hyperthyroidism (Moehlig[11]). In congenital hypothyroidism it has been adequately demonstrated that the pituitary is underfunctioning as shown by the pathological findings. These are briefly (1) chromophobic enlargement of the gland—the inactive state, and (2) aplasia and degeneration.

The clinical evidence supports the pathological findings of pituitary underactivity. Naturally if this is true, then the small adrenal cortex that is present in congenital hypothyroidism is understood as being secondary to the changes in the pituitary. Wegelin[16] has reported on the adrenal cortex pathology as seen in congenital hypothyroidism.

Lending support to the opinion that the adrenal cortex is involved in hypothyroidism is the work of Hill and associates.[6] These workers found that patients with untreated myxedema show a delayed and often inadequate adrenal cortical response to ACTH, as measured by the four-hour and forty-eight-hour change in eosinophil level, and the forty-eight-hour change in 17-ketosteroid excretion.

The administration of desiccated thyroid restores the capacity of the adrenal to respond readily to ACTH. From this it would appear that an op-

tinal level of thyroid is necessary for normal adrenal cortical function.

Whipple's intestinal dystrophy is characterized by gastrointestinal distress with fatty diarrhea and failure of intestinal absorption leading to death. Hendrix and associates[5] reported four new cases. They said that the disease is characterized clinically by sprue-like manifestations usually accompanied with chronic arthritis and hypotension but with macrocytic anemia.

Many of the patients, they said, display chronic polyserositis and "marantic endocardiosis." There is suggestive evidence in some cases of functional impairment of the adrenal cortex.

The involvement of the adrenal cortex with chronic polyserositis again suggests that this portion of the adrenal is concerned with the serous layers of the body, and the changes seen in the adrenal cortex may well account for the production of serositis.

If the adrenal cortex is involved in Whipple's disease, then the involvement of the mesothelial serous layers could be understood as due to changes in the electrolyte and water metabolism. Perhaps the involvement of the synovial membrane with the resultant arthritis is also due to adrenal cortex involvement.

If further speculation were permitted, then the inadequate fat absorption and the increased glucose tolerance with low glucose values might be the result of a primary inadequate pituitary function and a secondary adrenal cortex hypofunction. The involvement of the pituitary is based on the selective action of this gland on mesodermal tissues. This includes the synovial membranes, fat cells, and adrenal cortex.

Hendrix and associates[5] said it may well be more than coincidence that most of the patients with Whipple's disease, about whom pertinent information is given, showed signs suggestive of adrenal cortex insufficiency, such as increased pigmentation of the skin and hypotension. These features of Whipple's disease have been pointed out by several writers, and the patient studied by Glynn and Rosenheim "improved temporarily" after the administration of cortical extract. The possible relationship of the adrenal cortex to intestinal absorption has been the subject of speculation in both Whipple's disease and sprue, and "moderate steatorrhea" has been reported in some patients with Addison's disease. It seems probable that there is a certain degree of functional injury of the adrenal cortex in Whipple's disease, probably as a part of the general disease state. However, one can conceive of such hypothetic cortical insufficiency as representing the final "stage of exhaustion" of the "adaptation syndrome" of Selye.

Recently Plummer and associates[13] reported on the clinical and pathologic study of thirty-four cases of "lipophagic intestinal granulomatosis" (Whipple's disease).[5]

They stated that "lipophagic granulomatosis reveals many characteristics resembling pituitary and adrenocortical hypofunction (hypotension, pigmentation, asthenia, male predelection, abdominal pain)."

They further stated that "lipophagic granulomatosis shows numerous resemblances to the 'collagen diseases' and adrenocortical hypofunction, as evidenced by the foregoing data."

There is perivasculitis, panserositis, endocarditis, lymph node involvement, and chronic polyarthritis as well as a lipoid (fat) disturbance.

As far as can be seen from this, we have a mesodermal tissue involvement, and the evidence for the mesodermal adrenal cortex involvement is strengthened by the fact that the mesothelial serosal layers are involved since the latter are influenced by the state of the adrenal cortex.

The pituitary and mesodermal tissue involvement was stressed many years ago, first in 1914, and stressed ever since by one of us. (Moehlig[10]).

Escudero and associates[2] reported a patient with Whipple's disease who had several colloid cysts in the anterior pituitary and atrophy of the alpha cells in the islets of Langerhans.

Certain it is that we seem to have a common denominator (adrenal cortex hypofunction) in Meig's syndrome, severe hypothyroidism, and intestinal lipodystrophy, which could readily explain the involvement of the serosal layers of the body. The adrenal cortex has a selective action on these mesothelial tissues and as has been amply demonstrated, the other mesothelial tissues such as the gonads and the striated muscles, including the specialized heart muscle are involved in adrenal cortex disease.

Adding to the evidence that the adrenal cortex affects the serosal layers are the peritoneal symptoms present in Addison's disease. Abdominal pain of a generalized nature plus gastrointestinal

symptoms may be due to peritoneal involvement. Rigidity and tenderness of the abdomen may resemble peritonitis (Ebstein[1]). This may lead to the diagnosis of appendicitis, cholecystitis or other acute abdominal conditions, and operation may be undertaken.

Acute adrenal insufficiency may take on the acute abdominal form which is characterized in part by severe epigastric pain, lumbar tenderness, vomiting and profound shock. Thorn[15] stated that abdominal pain has been observed from time to time in approximately one-third of the patients with Addison's disease.

Addison's disease may be accompanied by ascites, hydrothorax and pericardial effusion, again showing the mesothelial serosal layer involvement. This can be present without tuberculous involvement of the adrenal glands.

Today, thanks to the valuable contributions of physiological chemists, we are less dependent upon the pathologists for diagnoses in certain diseases. The pathologist is as yet unable to state whether an individual has diabetes mellitus from his autopsy sections, or whether a goiter is toxic or not.

It is an indication that the more we know of cellular physiology the better do we understand the chemical changes in the cells which may not show pathological changes by our present methods of microscopic examination.

It is therefore not unlikely that our advancing knowledge of adrenal cortex physiology and endocrine physiology in general will permit us to say that the adrenal cortex is involved in the aforementioned diseases. Of course, there must still be a brake on unwarranted speculation, but we have more right to postulate certain hypotheses than some years previously when our knowledge of endocrine physiology was scanty.

As applied to Whipple's intestinal dystrophy it is suggested that the pituitary function may be involved since this gland influences the development and function of the mesoderm, which includes the adrenal cortex, and the latter in turn has the same relationship to the mesothelium.

In Addison's disease the involvement of the adrenal cortex would, according to this hypothesis, explain the peritonitis-like symptoms seen in this disease as well as the occasional nontuberculous ascites, hydrothorax and pericardial effusion.

Actual proof of this hypothesis as applied to the aforementioned diseases awaits confirmation, but we hope that it may prove helpful in solving their etiology.

Summary

A working hypothesis was suggested to explain the reason for certain peritoneal, pleural and pericardial effusions found in Meig's syndrome of ovarian fibroma, some cases of severe hypothyroidism and intestinal lipodystrophy (Whipple's disease).

This hypothesis is based on the embryology of the adrenal cortex and the serosal peritoneum, pleura and pericardial origin.

The adrenal cortex influences the development and function of the mesothelium and as applied in the present situation, means the mesothelial serous layers, the peritoneum, pleura and pericardium.

It has been reported elsewhere that the adrenal cortex in addition influences the development and function of other mesothelial structures, namely, the epithelium of most of the urogenital organs, the striated muscles, both skeletal and cardiac.

A case of severe hypothyroidism was reported in which the patient had a tremendous ascites and hydrothorax. This condition cleared up completely with the administration of adequate dosage of thyroid substance, and she has remained free of ascites and hydrothorax for a period of five months.

Below is a diagram using the hypothesis as described in the text:

Ectodermal adrenal medulla
and
Sympathetic nervous system
↓
Ectodermal hypothalamus
↓
Ectodermal pituitary
↓
Mesodermal tissues
including the
Adrenal cortex
↓
Mesothelium
↓

1. Lining of urogenital organs—gonads.
2. Pericardium
3. Pleura
4. Peritoneum
5. Serous layer of intestine
6. Striated muscle
   (a) Skeletal
   (b) Cardiac.

(Continued on Page 196)

Marshall B. Lloyd Hospital Dedicatory Address

By L. Fernald Foster, Ph.B., M.D.
Secretary, Michigan State Medical Society
Bay City, Michigan

"The furthering of the medical arts, the practice of medicine, the care of the sick, child welfare, the establishment and operation of hospitals, laboratories, dispensaries, and medical diagnostic institutions, or any of either of said purposes which may properly come within charitable uses. I especially recommend the establishment of an institution in Menominee, Michigan, for medical diagnosis and temporary care of the sick . . ." So reads the will of Menominee's great leader, Marshall Burns Lloyd.

IN REALIZATION of the words and thought of Mr. Lloyd as portrayed in his will, we are gathered today to dedicate the physical embodiment of his vision—the Marshall B. Lloyd Hospital.

Mr. Lloyd wished to further the science of medicine—and in this great new institution this science will be fostered.

Mr. Lloyd, realizing the difference between medical science and the application of that science, wished to further the practice of medicine—and in this institution the art of medicine becomes a reality.

Mr. Lloyd wished to care for the sick—what greater opportunity could he have provided than the Marshall B. Lloyd Hospital?

Mr. Lloyd was interested in child welfare—this institution typifies the emphasis on preventive medicine and basic good health, inherent in the principles of child welfare.

In death, as in life, Marshall B. Lloyd demonstrated the vision that earned him the recognition, "Menominee's Foremost Citizen." Each step of progress is but the "lengthened shadow of a man." Within the limits of the shadow of Mr. Lloyd lie life-lengthening opportunities for the citizens of Menominee.

The intriguing biographical record of Mr. Lloyd is written in the pages of the history of Menominee. It is not unique, however—it is the story of America, typifying the American way of life under a system of private enterprise. It is the story of a poor boy who became the wealthy benefactor of the community that nurtured him. As a boy, young Marshall was in succession a shingle mill employe, a grocery clerk, a shoe clerk, a factory hand, a hotel waiter, a peddler, a farmer and an insurance salesman. But the spark of genius was always present. That spark flamed in the field of invention. We see the creation of a new-type eavetrough, a clothes hamper, a combination scale and bag-holder, a wire-weaving machine, and the manufacturing process of welding flat steel into tubing —all great contributions in the march of industrial progress.

Undismayed by destruction of his first manufacturing concern by fire, he persevered and succeeded in the C. O. White Manufacturing Co., the Lloyd Manufacturing Co., the Haywood-Wakefield Co. and the Lloyd Store and Lloyd Theater.

He became a wealthy man and through his benefactions followed the same pattern. We see this exemplified in his will which provided not only for development of new medical scientific treatment but also for its distribution.

Let us for a moment consider the environment in which this man grew. No better phrase than private enterprise can typify that environment.

We see in the sunshine of the American private enterprise system the fostering of personal initiative as opposed to paternalism—flexibility and dynamic growth as opposed to the rigidity of regimented, governmental compulsions. We see the expansion of opportunity by the sagacious use of profits as opposed to the stiffling influence and loss of profits occasioned by over-weaning taxation. We see unimpeded progress through fostering of an inventive spirit under a capitalistic economy. We see wholesome competition creating a man-to-man relationship resulting in the desire to share his successes with his fellow-man.

Mr. Lloyd was the implement through which the American way of life made its blessings become a reality in this community—one of those blessings becoming reality is the hospital we are dedicating here today.

To those of us who have had the pleasure of inspecting this new hospital and of viewing its present and proposed facilities, it presents itself as the acme of architectural and structural perfection. The scientist recognizes in this hospital unusual provisions for scientific accomplishment. He sees a truly modern and specially equipped department of physical medicine. He is impressed by such facilities as the Hubbard Tank with its overhead

Delivered at the dedication of the Marshall B. Lloyd Hospital, Menominee, Michigan, August 10, 1950.

crane for total bath immersion, the whirlpool baths, the electric cabinets, massage equipment, needle sprays, creative workshop for occupational therapy, electrotherapy and exercise room, and other modern devices to affect a rehabilitation of those who have fallen victim to crippling disorders.

For those patients needing surgery the scientist sees a battery of operating rooms handsomely equipped to meet the demands of the surgical specialties.

Equally important are a host of technical devices incorporated in the basic construction of the hospital to aid in the care and comfort of the patient. There is in each room an oxygen supply, radio, telephone and lavatory. A doctor's audible paging system, a nurses' call system and doctors' registry provide a co-ordinated communication setup.

Incorporated in the well-thought-out plans are all the other features of a truly modern hospital—conference rooms, meeting rooms, diet kitchens, nurses' stations and the like.

I cannot help but be impressed by the dissimilarity of such a hospital and a modern hotel, with which hospitals are so frequently compared. Such comparison only proves to me why hospital bed costs exceed those of a hotel and justifiably so.

I need not further elaborate upon the physical properties of the Lloyd Hospital—they are here for all to see.

However, the significance of a hospital from the standpoint of modern medicine is less obvious to the average eye. Here again the Lloyd philosophy of progress through research and exploration finds its voice.

It is in institutions like this that medicine has found the answers to disease which have increased our life expectancy twenty years in the 20th Century. Such an institution lends itself to unfettered research by personal initiative in contradistinction to stifling influences of government medicine. We must not forget that insulin, penicillin, aureomycin and streptomycin were not discovered by an act of Congress, nor did any legislative pen ever dictate the techniques of the modern surgeon.

Upon this occasion we should give especial thought to the significance of two questions, viz.:

1. What does the Lloyd Hospital mean to your community?

2. What does the Lloyd Hospital mean to you personally?

Your community has gained far more than a building, for this hospital brings to your doorstep the medical facilities seldom found outside the great teaching centers. It brings to your family doctor an opportunity to improve his ability to serve you. It brings to you a health information center for the dissemination of sound health advice.

To you personally, it provides a place to postpone death, to recover from illness, to protect your health—in short, to enable you to increase your total enjoyment of life by minimizing time spent in infirmity and disability.

What greater gift can man give to man?

The Lloyd hospital is a beautiful structure—but it becomes a glaring failure to the memory of its donor unless it implements to the greatest extent and with maximum efficiency the service for which it ws created. A great responsibility rests upon the Lloyd Clinic Fund directors for its administration, upon the Sisters of St. Francis for its operation, upon the professional staff for its skill and upon the community for its support.

We should today pay tribute to the directors of the Lloyd Clinic Fund, who have so wisely administered the funds allotted to them, and whose continued wise counsel will ever be essential to the preservation and extension of the progress made to date.

The delegation of the operation of this institution to the Sisters of St. Francis was in my opinion most wise. It means the application of sound principles of hospital operation by a group uniquely qualified by experience and training. Perhaps even more important is the fact that the Sisters of St. Francis are cognizant of the needs and problems of Menominee. Under their direction the ancillary services to medical science attain their rightful place of importance—as essentials to the success of medical science.

The doctors of medicine of Menominee have been given a precious treasure and with it a grave responsibility, which only a conscientious and considerate application of their art can discharge. I call upon the doctors of medicine of Menominee to be ever midful of the fact that their greatest responsibility is to their patients, and through the facilities of this hospital they can better discharge their responsibility. Menominee is fortunate in having an excellent quality and supply of medical, nursing and other professional personnel. Great medical institutions are not simply brick and

mortar but become great because of a personal, day-to-day co-ordination of minds and hearts to effect greater health and well being.

Up to this point the content of my remarks has been preliminary to the one thought I should like to leave with you today. The conception and birth of a child is a physical function, but once the child is born the responsibility for the spiritual and physical growth of the child becomes a challenge which cannot be ignored. That concept is recognized in the law of every civilized nation.

Years ago, Mr. Lloyd, one of your noblest citizens, conceived an idea which today has come into being. As citizens of Menominee, you can't dismiss the challenge of supporting and guiding this community offspring. And it will ever need your support.

Nothing is free. Benefits to Menominee will be contingent upon the material and spiritual support given this hospital. Your hospital will open its doors wide to all.

To those unfortunates whom the vicissitudes of life have dealt devastating blows, which even their sincerest efforts could not withstand, the shelter and services of the hospital and its personnel will be freely and gladly given. But those who seek the benefits of this institution and are self-supporting should of course give gladly of their substance in proportional return. But that is not enough. A sympathetic understanding by the community of the problems of administration and operation of the hospital is mandatory for harmony. And harmony is essential to efficiency and to the basic purposes and aims of the hospital.

As we look into the future, in the light of this challenge, we see that misunderstandings will arise —new diseases will come to plague us—progress is not devoid of difficulty—indeed it is only by the surmounting of difficulties that progress is made. For without the recognition of problems we degenerate into stagnation. Even the splendid physical facilities of this hospital are outmoded as of today. We must add tomorrow the new by developing appurtenances of modern medical science—the fastest growing science in the world.

We must dedicate ourselves today to the challenge of tomorrow to maintain our American social and economic principles—and within these concepts maintain this hospital as our joint and separate responsibility.

Mrs. Henrietta Lloyd Merrill, I speak for the citizens of Menominee, the board of trustees of the Lloyd Clinic Fund, the medical profession of the community and of the state, the Catholic Order of the Sisters of St. Francis and all those persons who seek the beneficent shelter of this great institution, when I express their sincere and humble appreciation for your help and inspiration both as an individual and the representative of Mr. Marshall Burns Lloyd.

My new cut ashlar takes the light
Where crimson-blank the windows flare.
By my own work before the night,
Great Overseer, I make my prayer.

If there be good in what I wrought
Thy Hand compelled it, Master, Thine—
Where I have failed to meet Thy Thought
I know, through Thee, the blame was mine.

The depths and dream of my desire,
The bitter paths wherein I stray—
Thou knowest Who has made the Fire,
Thou knowest Who hast made the Clay.

One stone the more swings into place
In that dread Temple of Thy worth.
It is enough that, through Thy Grace,
I saw naught common on Thy Earth.

Take not that vision from my ken—
Oh whatsoe'er may spoil or speed.
Help me to need no aid from men
That I may help such men as need.

MSMS

CEREBRAL BIRTH INJURY

(Continued from Page 152)

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Progress Report on Maternal Mortality Study

A STUDY of maternal deaths that have occurred in Michigan during 1950 is being made and is nearly completed. This research has been sponsored by the Michigan State Medical Society and the Michigan Department of Health.

The Committee on Maternal Health of the State Society has prepared a questionnaire consisting of fifteen pages which is being used by the six obstetric consultants for recording in detail each maternal death.

A committee, consisting of Dr. Norman F. Miller, professor of obstetrics and gynecology, University of Michigan, Dr. Charles S. Stephenson, professor of obstetrics and gynecology, Wayne University College of Medicine, and Dr. George Kamperman, is reviewing these reports.

The Committee on Maternal Health of the Michigan State Medical Society is responsible for the publication of this work in THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY. Until the reviewing committee has completed its work, one or two case reports will be published each month.

All maternal mortality reports are anonymous, and the reviewing committee and all others concerned with this study positively guarantee that no physician who reports a maternal death will be subjected to any embarrassment.

Maternal Death

Case 1.—Patient white, aged twenty-nine, primigravida. L.M.P. February 25, 1950. First seen during the second month of pregnancy. Four prenatal visits made. Previous medical history negative.

Admitted to hospital first time May 5, 1950, with abdominal cramps and brownish vaginal discharge. Treated as a threatened abortion. No pelvic examination. Discharged May 7.

Re-admitted May 8 with ruptured ectopic pregnancy.

Patient was well until May 4, 1950, when she complained of lower abdominal cramps most marked on left side and developed a scant brownish vaginal discharge. She was hospitalized with a tentative diagnosis of threatened abortion and observed. Hemogram and urinalysis were normal. No vaginal or rectal examination was done. Symptoms subsided and patient was discharged home May 7, 1950.

Eighteen hours later patient felt well and was out of bed when she was seized with a sudden severe abdominal pain which persisted. She was readmitted to the hospital with a tender, rigid abdomen. Blood pressure 60/0 and a thready, rapid pulse, red blood cells 3,570,000, white blood cells 17,100. Blood type 11A, Rh positive. She was given ¼ gr. morphine sulfate, 1000 c.c. 5 per cent glucose in water and prepared for immediate surgery 1000 c.c. blood and 1000 c.c. 5 per cent glucose in water was administered in the operating room, where under N_2O_2 plus O_2 and ether anesthesia the abdomen was opened and found to be filled with blood from a rupture in the middle third of the left Fallopian tube from which a ten-week fetus was removed. A left salpingectomy was done, the abdomen sponged free of blood and closed. Patient's postoperative condition was reported as satisfactory. Blood pressure 108/50, pulse 124. 250 c.c. plasma followed by 500 c.c. blood and 1000 c.c. 5 per cent glucose was given intravenously immediately after surgery. The patient reacted from anesthesia and appeared to be in reasonably good condition until 2:00 a.m., May 9, four hours after surgery, when a sudden drop in blood pressure to 70/0 was noted along with dullness in the flanks. The possibility of intra-abdominal bleeding was suggested and treatment consisting of almost a constant infusion of blood and fluids instituted. Blood pressure stabilized between 110/70 and 72/40. No further laboratory studies were made. The following morning at the attending physician's request the patient was seen by a surgical consultant who made no definite diagnosis and advised expectant treatment as long as the patient's condition permitted. At 4:00 p.m. of the same day the patient's abdomen had become tense, tender and distended and her blood pressure again became indiscernible. She was returned to the operating room, where under local infiltration 1 per cent novocaine anesthesia the abdomen was reopened and found to be filled with blood coming from the left ovarian pedicle. The ovary was removed, bleeding controlled and the abdomen reclosed. 2000 c.c. of blood was given during surgery, making a total of 6000 c.c. blood and 6000 c.c. fluids administered in twenty-four hours of hospitalization.

Following surgery the patient began having considerable dyspnea and became cyanotic. She was seen by medical consultant who reported massive pulmonary edema and cardiovascular collapse. Course was rapidly downhill and patient expired at 7:25 a.m., two hours after operation.

Surgical consultant advised expectant treatment when question of operation for intra-abdominal hemorrhage arose. Medical consultant was called in terminal phase who suggested that the cardiovascular collapse was due to over-administration of fluids.

Autopsy Findings.—

1. Ruptured left ectopic pregnancy with massive intra-abdominal hemorrhage.
2. Acute passive congestion of lungs.
3. Left ventricular failure.

Summary and classification by reviewing committee:

Maternal death.....Yes

Preventable death.....Yes

Ruptured tubal pregnancy with hemorrhage and secondary hemorrhage.

Faulty medical judgment and faulty technique.

From the Michigan State Medical Society Committee on Maternal Health, Sub-Committee on Maternal Mortality Study.

Detroit Surgical Association

Meeting of October 19, 1950

The Management of Gastrointestinal Foreign Bodies

THOMAS GREKIN, M.D., and
MERLE MUSSELMAN, M.D.
Wayne County General Hospital, Eloise, Michigan

Records were reviewed of fifty-one patients admitted to the Wayne County General Hospital during an eleven-year period with a history of ingestion of a foreign body. These foreign objects varied greatly in size, shape and texture. Surprisingly, 82 per cent of the sharp objects passed spontaneously while only 63 per cent of the blunt ones did so. The points of delay or arrest in progression were first the esophagus and then the ileocecal region, with no perforations in this series. Esophagoscopy and removal is indicated only with severe pain, marked dysphagia, hemorrhage or mediastinitis. Celiotomy is indicated only by symptoms of obstruction, hemorrhage or perforation or for arrested passage of the object after four weeks of observation. A conservative plan of management without catharsis lavage or special diet is recommended. Frequent x-rays, examination of each stool, and recognition of complications complete this plan. Operation for removal of ingested foreign bodies is reserved for the special indications mentioned.

The Intestinal Villus in Man and Laboratory Animals

LYLE F. JACOBSON and RUDOLF J. NOER
Wayne University College of Medicine

The morphology and blood supply of the small intestinal villi have been restudied as a basis for further investigation of the effects of distention upon the intestinal wall. Rabbit, dog, opossum, have all been studied as well as human specimens obtained at operation. India ink and two-color latex injections have been accomplished and some specimens have been cleared for vasculature demonstration.

The villi of the dog and opossum are both cylindrical, with a tendency toward clubbing of the distal end in the opossum. The rabbit villi are roughly triangular in shape and those of man are somewhat leaf-like in the upper reaches of the gut, more cylindrical towards the ileum.

The blood supply of the villus, derived from the submucosal arterial plexus, is provided to arterial branches passing up the periphery and draining by a central vein which receives the blood by arterial venous anastomoses or capillary connections near the tip.

Meeting of November 20, 1950

The Diagnosis of Traumatic Intracranial Hemorrhage by Angiography

J. E. WEBSTER, M.D., R. DAWSON, M.D., and
E. S. GURDJIAN, M.D.
Grace and Receiving Hospitals, Detroit, Michigan

The differential diagnosis of intracranial lesions in the seriously injured patient is sometimes difficult. Exploratory trephine openings and diagnostic air studies may be harmful and inconclusive. Recognition of those lesions demanding surgery is essential. Angiography may be the means of accurate delineation of the lesion present whether amenable to operative treatment or not. At Receiving and Grace Hospitals from January to June, 1950, about 350 patients with head injury were admitted. One hundred sixty had major cranial injuries. Angiography was accomplished in thirty patients who did not improve or who gave evidence of a "dynamic syndrome" of increasing stupor, new focal signs, progressive cerebral dysfunction as shown by cardiac, thermal or respiratory changes. There were nine subdural

hematomas, two epidural hematomas, four temporal lobe intracerebral collections, one extravasation lesion, two aneurysms, and ten with no evidence of a surgical lesion. There was one false negative angiogram in a patient with bilateral subdural hydroma proven by trephine, and one false positive in a patient with severe damage to the temporal lobe. The patterns of angiographic change in the various lesions were illustrated. Accuracy of the angiogram was confirmed by trephine in many patients with a normal vascular pattern and by postmortem in those that did not survive. The disadvantages of angiography in this situation are the possible reaction to the contrast medium, movement of the patient.

Diagnostic Accuracy in Upper Gastrointestinal Lesions

EDWIN SYKES, M.D., and H. M. SMATHERS, M.D.
Veterans Hospital, Dearborn, Michigan

Two hundred and forty-seven gastrointestinal lesions operated upon at the Veterans Hospital, Dearborn, Michigan, were analyzed for accuracy of diagnosis by the clinician, radiologist, gastroscopist, and surgeon. The lesions included one hundred nineteen duodenal ulcers, sixty-four gastric ulcers, twenty-six gastric carcinomas and thirty-eight miscellaneous conditions. As might have been predicted, the duodenal ulcer group presented little difficulty to the clinician, radiologist, and surgeon, whereas the gastroscopist had almost nothing to offer in arriving at this diagnosis. In the gastric ulcer group, however, only the surgeon was more than 50 per cent accurate in diagnosis and in 15 per cent of the cases he did not correctly interpret the pathology. Clinician, radiologist, and gastroscopist were all within two points of 75 per cent accuracy in the diagnosis of gastric carcinomas. The surgeon made an incorrect diagnosis in 11 per cent of these cases.

Discrepancies in some instances may have been due to the time lag between the various examinations. It was also apparent that the x-ray and gastroscopic examinations complemented one another. Most important was the revelation that the surgeon misinterpreted more than 11 per cent of the gastric lesions. Since the pathological nature of gastric lesions is so difficult to determine without biopsy, the clinician who would "observe" such a lesion for any extended period is bearing a tremendous responsibility.

Meeting of December 5, 1950

The Use of Segments of Small Intestine as Ureters

D. W. MCLEAN, M.D., and O. G. FAIS, M.D.
Wayne University College of Medicine

The successful clinical utilization of an isolated segment of small bowel to replace a portion of one ureter was reported by Nissen in 1940. There has been neither clinical nor experimental evidence advanced to support the feasibility of this procedure.

This is a report of our observations on the effects in the dog of substituting a 20 cm. segment of small intestine for one or both ureters.

In six dogs a segment of bowel replaced one ureter. These animals showed an initial rise of about 100 per cent in the nonprotein nitrogen (NPN). There was a subsequent fall to normal level in half of the animals within six weeks. The other half showed a persistent increase in the NPN of about 25 per cent after several months. One dog was biopsied at three months and sacrificed after one year. The kidney on the operated side showed contraction and infection. The kidney on the unoperated side showed some increase in size but no other significant change. The bowel used as ureter showed no change. The ureterointestinal anastomosis showed some stenosis but an adequate lumen.

In three of these dogs the opposite kidney was removed. One dog died in four and a half days, and a second died ninety-five days following nephrectomy. This second dog appeared clinically well until four days before death. In both cases there was complete obstruction at the site of ureteral anastomosis. The third dog showed a moderate increase in NPN, but after eleven weeks the NPN, plasma chloride and CO_2 levels were all normal.

In two dogs a 20 cm. segment of small intestine

was substituted for both ureters in one operation. Both dogs showed a precipitate rise in NPN and a return to normal in six weeks. About eight months after operation one of these dogs became pregnant and delivered eight pups at term, all developing normally. Both of these dogs showed a normal blood chemistry and appeared clinically well at the end of one year.

In five dogs with intestinal segments replacing one or both ureters, the plasma chloride level was 10 mg. per cent lower and the CO_2 4.6 vol. per cent lower than in two normal dogs used as controls.

Cultures of the bladder urine showed infection in all cases where the small intestine was anastomosed to the bladder.

Conclusions.—

1. In the dog a segment of small bowel may be used to replace one or both ureters without obviously affecting the clinical or physiological status of the animal for periods up to one year.

2. All of the dogs with intestinal ureters showed persistent infection of the urinary tract. This infection leads to a variable degree of pyelonephritis.

3. Stricture at the ureteral anastomosis is the most serious complication.

4. If stenosis and infection can be prevented the utilization of segments of small intestine for the transport of urine should prove a feasible procedure in clinical surgery.

Renal Papillary Necrosis

ARNE KNUTSEN, M.D., ELMER R. JENNINGS, M.D., and A. R. AXELROD, M.D.

Receiving Hospital, Detroit, Michigan

The subject of renal papillary necrosis was briefly reviewed and the conclusions given from a histological and pathological study of sixteen cases seen in the past three years at Receiving Hospital. The condition is seen chiefly in diabetics and in those with obstructive uropathy, usually prostatic hyperplasia. Gross and microscopic findings of the kidneys examined did not support the hypothesis of a "reversed Trueta shunt" in the pathogenesis. Thrombosis was found only once and is unimportant in etiology. Arteriosclerosis and arteriolosclerosis were almost constantly present and bacteria were invariably found in the tissues. The association then is between a kidney impaired as to function by vascular disease and a supervening renal infection. The resulting papillary infarction and limitation of damage to papillae and adjacent pyramids is still unexplained from this study.

An Evaluation of Sliding Bone Grafts of the Tibia

HERBERT E. PEDERSEN, M.D., and A. JACKSON DAY, M.D.

Veterans Hospital, Dearborn, Michigan

The use of the Albee inlay graft for the treatment of various fracture problems of the tibia was discussed. Its use at the Veterans Hospital since 1946 in twenty cases was critically examined. The end result could be determined in sixteen patients, two patients could not be found, and in two there was a too short postoperative period for study. This type of graft was used for nonunion thirteen times, four times for delayed union, once for mal-union, and two times for recent unstable fractures. Fourteen of the sixteen had solid bony union. Complications included two fractures of the graft, two significant infections which only retarded healing, and one refracture of the graft. One graft fracture and the one graft refracture contributed to the two failures reported. It was stated that the failures occurred in unusual problems where the choice of operation was subject to question. The authors believe that the sliding inlay graft fixed with metal screws is a sound operative procedure for treatment of unstable fractures, delayed union, and all but unusual cases of non-union of the tibia.

SOCIALISM

Socialism and death have one thing in common; you cannot be either a little bit socialized or a little bit dead. It is whole hog or nothing. After two years of the National Health Program, London doctors still have preference as to where they want to practice. By compulsion of one kind or another, somebody is going to have to shoo doctors away from the fancy neighborhood into the tenement districts, or the program will wind up where it started. When the government is given authority to tell one group or one profession where and how its members are to work, no other group or profession can be safe for long.—WILLIAM L. HUTCHESON, General President, United Brotherhood of Carpenters, Joiners, Vice President, A. F. of L., Cleveland, December 6, 1950.

Seals

The medical profession places its seal of approval on many projects which have as their objectives improvement in the health of people. There are Easter (Crippled Children) Seals, Christmas (Tuberculosis) Seals, the Poliomyelitis March of Dimes, and many others. Every American has the God-given right and obligation to help his neighbor who cannot sustain himself. This duty is multiplied many fold when the individual's health is concerned. In this one way we, as men and women of medicine, can spark the welfare of the individual far beyond any precedent. We can do all this providing we have the proper respect for the greatest of all seals, "The Seal of the United States."

That seal expresses a belief in God, freedom of the individual, the right to work for and to hold property and a government to insure the individual's rights. This seal expresses the purpose of America. Why then do we permit our government to tax and spend beyond a solvency limit? Why then do we permit our government to dip into everyone's business? Why do we tolerate ever bigger and more powerful bureaucracies? Wherever limitations on government are relaxed we are on our way to statism. Our forefathers created a government in which each branch acted as a check or form of limitation on other departments.

Every year the millions who become of age and assume their places in the structure of society have the right to work and be compensated for their endeavors. It is only by being productive and holding property that those who follow will be provided for. The incentive to accumulate makes it possible for us to plan the various seal programs. Have any other peoples of the world as many of the good things of life as we enjoy? Are they able to plan seal programs or do anything comparable for those who need assistance? Why should we apologize because freedom and incentive have worked so well for us?

President's Message

We must put first things first. We must preserve the Seal of the United States which stands for freedom, a belief in God, incentive and the right to hold property. We must not allow the government to assume unintended powers during times of stress and become a tyrant rather than a servant. We must counteract the 2 per cent or subversives, such as Communists and Socialists, who are working constantly for statism. We could create a desire for our way of life if we would bring representatives here from every country associated with or behind the Iron Curtain and let them observe what freedom means. Perhaps our forefathers were not the only ones who would rebel against tyranny and fight for freedom.

From the Preamble of the Constitution of the State of Michigan we read, "We, the People of the State of Michigan, grateful to Almighty God for the blessings of freedom, and earnestly desiring to secure these blessings undiminished to ourselves and our posterity do ordain and establish this Constitution." Let us then preserve this as well as our National Constitution and be assured our seal programs will continue to be a part of a better, fuller life for those who are our unfortunate neighbors.

As an example, "The Easter Seal" as sponsored by the Michigan Society for Crippled Children and Adults, Inc., represents a voluntary organization which carries on a life-saving program of service to the underprivileged. Among its many benefactors is the Michigan Rheumatic Fever Control Program. We commend the Michigan Society for Crippled Children and Adults and the Easter Seal to all Michigan doctors of medicine, their wives, families and patients. This is truly a chance to aid an afflicted unfortunate neighbor.

C E Umphrey M D

President, Michigan State Medical Society

Editorial

CO-OPERATION—GOOD PUBLIC RELATIONS

FOR MANY years the Council of the Michigan State Medical Society has believed most of the problems of health and welfare of our people could best be solved by combined efforts of members of the medical profession and interested laymen through direct action rather than through the activities of government agencies. These latter always have a tendency to become dominant and bureaucratic.

This issue of THE JOURNAL is testimony to what such association may accomplish. Friendship and co-operation was established in the far past between the Michigan Society for Crippled Children and Adults, Inc., and the Council of the Michigan State Medical Society, which led to many common meetings, discussions, and the establishment and adoption of well-defined objectives. The care of crippled children, especially case-finding, and early diagnosis was a worth-while project. Especially commendatory was the creation and financial sponsorship of Michigan's pioneering Rheumatic Fever Control Program, with the Michigan Society for Crippled Children and Adults and the Michigan State Medical Society leading the way.

More recently the Society together with the Wayne County Medical Society became interested with the problem of the epileptic. A very worthwhile study has been in being for several years. Now the members of the Detroit group are offering their information and services to the epileptics of the whole state. This branch of specialized medicine is sadly needed. Much can be done for the victims. The profession through its association with the Michigan Society for Crippled Children and Adults stands ready to make its joint abilities and services available to many who otherwise would surely become neglected persons.

Some ten years ago the Michigan State Medical Society co-operated with the Michigan Society for Crippled Children and Adults, which furnished a goodly sum of money in establishing a most remarkable project of case-finding and guidance in the study of rheumatic fever of children. The incidence and crippling results of this disease were appreciated by the profession, who believed it could prevent much of this suffering and economic loss by voluntary diagnostic centers, to which doctors of medicine could send their questionable patients for study by well-known internists, pediatrists, otolaryngologists, and others with special skill in detecting rheumatic fever. Fourteen centers were set up in various parts of the state, and later sixteen in Wayne County. The work was financed by an original grant of $22,000 from the Crippled Children Society. The grant was repeated for several years. The burden lately became rather heavy and the newly established Michigan Heart Association also made a formidable grant which is carrying much of the expense of the present thirty-four diagnostic centers for rheumatism of childhood.

Spastic paralysis is another disease needing much work. Victims are everywhere, and until recently nothing could be done if the parents of the patient were not in position to assume a staggering financial burden. Most of these cases were considered hopeless, but now through efforts of the same Michigan Society for Crippled Children and Adults diagnostic groups have been operating in Michigan for several years. Training, corrective procedures and rehabilitation have worked miracles in these cases.

A PURE LIBEL AGAINST MEDICINE!

WE had always considered *Harper's Magazine* an interesting and highly respected publication, but we have just read Bernard DeVoto's "The Easy Chair—Letter to a Family Doctor," and we are compelled to revise our estimates.

We had considered DeVoto an accurate commentator and in the past have commended his remarks, but he has now stooped to a misrepresenting tirade against the medical profession, against Dr. Elmer L. Henderson, president of the American Medical Association, and against every one of us whom he includes in his blast if we were hoodwinked and browbeaten into paying the American Medical Association's special assessment of $25.00. He mentioned the advertising which the American Medical Association published in

October. He says, "I was following the ads which you were running in the Boston newspapers. I found them dishonest, and they further annoyed me by the copywriter's assumption that I am a fool."

Commenting on a statement purported to come from Dr. Henderson, DeVoto says, "He is to have no more colds, and his friend's daughter need not have died from poliomyelitis last summer. Cure guaranteed, Dr. Henderson's ad said in effect." Another paragraph reads, "Much might be said about this delirious rant, which would have landed Dr. Henderson before the un-American Activities Committee if it had been circulated by a group of excited college boys who had just heard of Marx. One thing is this: you and Dr. Henderson are saying what is not so. Another is this: Dr. Henderson acquires no immunity by wrapping the flag round the vested interest of the AMA's bureaucracy and trustees. Your acquiescence in his claptrap withdraws you from my respect but I take it to be a consequence of the fact that you have not done much thinking about the subject he is misrepresenting. . . . It is a fair bet that, like thousands of other physicians whose rage Dr. Henderson is whipping up, you have not even read the bills for compulsory payroll deductions for medical insurance which, after all, are what he is talking about."

It is our opinion that most of our doctors have read these bills and that Mr. DeVoto has not, for the tone of his article shows that he does not know. He implies that medical propaganda against socialized medicine is "a Jewish plot" and has "invoked anti-Semitism."

Further he says, "Many medical societies have threatened disciplinary action—up to measures which would make practice impossible—against any of their members who participate in any other kind of plan." (Referring to medically sponsored prepayment plans.) "Some have been convicted of conspiracy in restraint of trade—which is a crime, Doctor—and others are under indictment for such interference with voluntary prepayment plans. . . . The AMA has fought hard against comprehensive prepayment plans. It has tried to kill those that have succeeded. On the showing so far, is it honest about voluntary insurance or is it throwing dust in my eyes and yours?"

Mr. DeVoto must know that these statements are absolutely false. Federal Judge Claude McCollouch of Oregon answered these charges in the finding which he published when he even refused to hear defense arguments and decided the government had no case whatever against the Oregon State Medical Society et al. If that is conviction, we cannot understand English. We have also received a letter and pamphlets from Dr. Frank Dickenson, head of the Medical Economic Research Department of the American Medical Association, saying that he had tried to run down the charge that the American Medical Association had opposed prepayment medical plans. He had searched every record and there was not one item of support for that charge.

DeVoto charges the AMA "with its unvarying misrepresentation of the efforts other countries are making to solve the problem." In Michigan we will accept the word and personal letters of observation of our own members who have gone to Europe and studied this problem. Our own members can be trusted—Dr. Henry A. Luce, Dr. Grover C. Penberthy and many others. There has been no misrepresentation.

DeVoto says further, "The traditional system of medical practice has burst its seams; it is now inadequate and outworn. We are going to have something different. . . . This is a public matter, a community and national matter. It requires innumerable skills which medical men simply have not got, and it must be under the unremitting scrutiny of representatives of the public with power to act. Medical knowledge is only one of many kinds of knowledge that are required for social action."

What does DeVoto mean by "social action?"

DeVoto accuses the American Medical Association of an ambition to reach 60 per cent of the people with prepayment insurance, leaving the other 40 per cent to shift for themselves. He quotes Dr. James Howard Means, professor of clinical medicine at "a great medical school" (Harvard): "A learned profession has sunk, or been dragged, in its political sphere, to a distressingly low level. What organized medicine needs . . . is a new and more enlightened leadership."

We submit that organized medicine leadership has produced a healthy nation and in spite of its inadequacy has reduced the maternal death rate and the total death rate to an all-time low in America. DeVoto's letter and its tremendous circulation in *Harper's Magazine* is a libel on Dr. Elmer L. Henderson and upon each one of us. We hope for court action in this matter.

WE MUST RE-EVALUATE

FOR THE period of remembered time the ambition of the family provider has been to so map his economic course that he might enjoy his later years in comparatively less activity, and at the same time be assured that his dependents would receive proper care; that they would have a sufficient start on their own life; or would have a competence against want in case of the bread-winner's death or disability. Some of our more successful people attained that hoped-for stage; others only partially succeeded; but many were dependent on daily earnings when they reached the point where they could no longer work. Some became in turn dependent on their children. A generation ago such was an expected stage in man's existence. Now the parent abhors that end and the average younger person rebels against the thought that he should be compelled to support his elders.

The Federal Congress in 1935, being mindful of shortages of work and hardships of less fortunate persons, passed the Social Security Act, providing for retirement of the worker for "old age" at age sixty-five, and gave him a pittance of security benefits averaging for the individual $26.00 per month, and for the man and wife $41.00, with a penalty of no benefits whatever if he continued work and earned $15.00 a month or more. Fifteen years have passed under this system, and the time for re-evaluation is here. The law has been re-written, maximum benefits of $45.00 for the individual and $78.00 for the family are made available, and the work allowance is upped to $50.00 per month. (Incidentally, with our devalued money values this is not much of an actual increase, if any.)

Following the precedent established by federal law, many industries have set up a retirement age of sixty-five years at which employes are compelled to retire. Unfortunately for this brand of social planning modern medicinal research, sanitation, and better living conditions have raised the prospective average age expectancy. At the beginning of the century one person in twenty-five was over sixty-five, and now it is one person in thirteen. The prospects are that another fifty years will make that ratio one person in eight, if no further advance is made by medical and sanitary sciences, by housing and nutritional advantages.

The group of compulsorily retired persons has now reached about eleven and a half million, with prospects of twenty million by 1975. What is to be their future? We know three well-trained, active doctors of medicine who held salaried positions in nationally recognized medical centers, who faced the retirement date with apprehension. One has taken an administrative position which he says has saved his life, another grasped with thankfulness a literary assignment, and the third has voluntarily returned to a different kind of work to relieve the monotony.

We know of innumerable active administrators, retired in their prime, who have entered into some other business to use up their inborn energy and ability. Many have made successes, some have merely eked out a competence, but all have staved off boredom and intellectual stagnation. We hesitate to conjecture what must be the future outlook of so many of our men over sixty-five who are still in the vigor of life and usefulness, and who according to insurance tables have twelve to fifteen years of potential usefulness.

The present social security act has many good features that were and are needed, but we believe it should be entirely rewritten making it a real security insurance. When the individual has reduced earning power, make that help available to him as a right not to be denied because he is still ambitious and willing to continue work. It is estimated that our industrial retired individuals, with willingness and ability still in them, are depriving our economy of eleven billion dollars of potential earnings. That sum would go a long way to solve some of our administrative, defense or security problems.

We ask for a re-evaluation and re-examination of our security program.

Make the Social Security program an actual insurance with benefits payable when the worker can no longer work profitably, or when he reaches a retirement age consistent with the general average. When he retires on account of age or for any just reason, his benefits should be automatic, and under no circumstances, other than fraud, be curtailed even if he does continue to work, little or to the extent of his ability. He will have paid for his protection, theoretically, and should not be disfranchised.

Michigan Society for Crippled Children and Adults

Report for the Fiscal Year, October 1, 1949, to September 30, 1950

Percy C. Angove, Executive Director,
Detroit, Michigan

IT IS with pleasure that I present herewith a brief summary report on the work of the Michigan Society for Crippled Children and Adults. You, of course, are well aware that the Michigan Society is a two-fold entity, first, it is generally known as a statewide federation of local member units; second, it is a distinct corporate body, having definite responsibilities involving a rather broad program on the state level. This report will concern itself with the second of these two concepts, although as you will observe, it is difficult to separate the two, because in perfecting and carrying forward a statewide program, of necessity, state and local must work together. We do not begin to, and cannot here present a composite report of all of the work which is done within the broader structure, known as the Easter Seal movement, with its federation of national, state and local units.

Much detail that has obtained in previous reports will be eliminated in this report. It is sufficient to state that the same conditions prevail, only to a greater degree of effort and accomplishments.

Organization

The Michigan Society is governed by a board of directors consisting of not more than seventy members elected annually. The board as a whole meets once a year at the time of the annual convention—possibly a small board could meet more often, at least twice a year. However, directors serve faithfully throughout the year in their respective areas, and close contact is maintained with and from headquarters office.

Much of the business of the Society is, for purposes of convenience and expediency, delegated to the executive committee, which meets quarterly and more often if necessary. I am happy to report that more than a quorum has always maintained. The executive committee comprises the officers and four directors elected annually by the board of directors. At the moment a committee is revising the Society's constitution or code of regulations, giving special consideration to the number of directors for practical purposes, elections and tenure, and bringing purposes and policies up to date.

Assembly

At each annual meeting the assembly of voting delegates meet to hear reports, elect directors, and to consider any other business brought to its attention. The voting delegates are the directors, voluntary contributing members and not more than two duly certified members from each local affiliated unit.

Headquarters

The Executive offices are located at 449 West Ferry Avenue, Detroit. The building, formerly a residence, is owned by the Michigan Society. It comprises a conference room and seven offices with two rooms available for expansion. The full basement houses the Easter Seal workroom and print shop, and is also used for storing supplies. Our headquarters has proven to be ideal from the standpoint of location, convenience and efficiency.

Staff

At the present time the staff comprises sixteen full-time employes and one part-time employe—executive director, field secretary, occupational therapy and crafts supervisor, seven occupational therapists, crafts merchandiser, a part-time field secretary, janitor and printer, and four clerical workers. The greatest need now is for two, preferably three, area secretaries.

In the performance of the Society's work, the staff has traveled 76,382 miles, executive director 10,409; field secretary 5,927; occupational therapists 60,046. No travel is resorted to unless absolutely necessary to proper execution of the program.

Presented at the annual convention marking twenty-nine years of service, Hotel Olds, Lansing, Michigan, October 20 and 21, 1950.

Field Service and Promotion

Field work, affording personalized service at the grass roots level is, of course, the main function of the parent organization, as is evidenced by the amount of travel on the part of the staff; a considerable portion of the supervisory staff time is spent at headquarters—too much in fact, but it cannot be avoided. There is much correspondence and other means of communication involved. Then there is the matter of reports and accounting. We are extremely sorry that the requests from our local units and friends cannot always be complied with. It is sometimes difficult to render the service in the field that we would like to; for instance, there are oftentimes conflicting dates, conferences, and meetings, et cetera. We attempt to render service where it is most needed. I am happy to report that our units and friends throughout the state appreciate our personal attention to program, organization, finances and local relating problems; in fact, we usually work with them locally at their own request. Needless to say, considerable night work is involved because we must work with local friends at their convenience.

The staff has participated at several local units' annual meetings and at conferences and meetings of co-operating agencies.

The usual excellent co-operation maintains with the Michigan Crippled Children Commission, the State Division of Special Education, and State Vocational Rehabilitation.

Two Pals at Summer Day Camp

A successful annual meeting was conducted in Detroit.

The Society's official bi-monthly publication, "News and Notes" has been prepared at headquarters office and distributed to a mailing list of over 6,000.

Both our Loan Library and that of our National Society have been made good use of.

The executive director and certain staff members have given many public addresses before varied organizations.

Pamphlets and other literature relating to special subjects and services have been purchased by the Society and distributed free. At the present time we are furnishing free to local units interested in cerebral palsy, a brochure produced by our National Society, on equipment and appliances with working drawings and complete instructions for making or purchasing. Also very complete bibliographies developed by our National Society on all phases of the work have been distributed.

National Society films have been secured and shown eleven times before varied organizations—

hospitals and even the University of Michigan Speech Department.

The Society co-operated financially and otherwise in making possible the Cerebral Palsy Parent Children Nursery School at the Horace H. Rackham School of Special Education in Ypsilanti, the Nursery School Teacher-Training program at Wayne University and the Workshop at the College of Education in Kalamazoo. At all three of these, members of the professional staffs of both the National and State Societies participated as lecturers and consultants.

Two new county affiliated units have been organized this year, one in Lake and one in Ingham counties. Another one is nearly completed for Midland county. The encouraging feature here is that while we have rendered service in these counties and done some indirect promotion, the requests to become affiliated came direct from interested friends. There are now counties unorganized but it merely means that in these counties, the Seal sale is conducted direct from headquarters' office. We do have contacts in these counties through which we work.

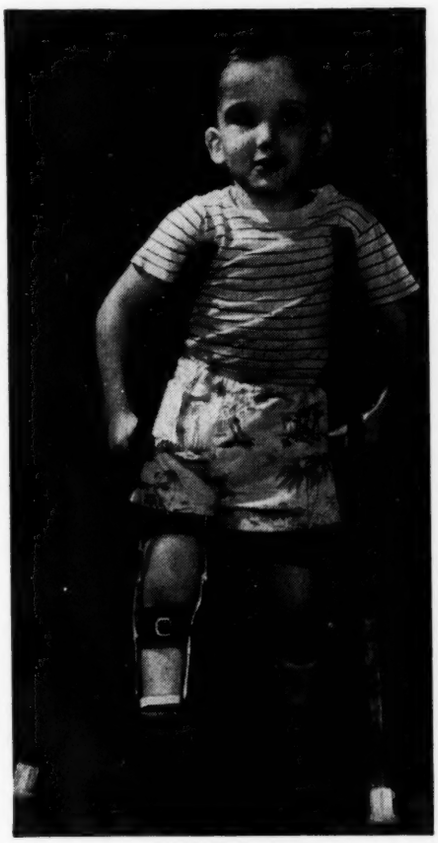
We have again promoted federal and state legislation with some degree of success and are still actively concerned with certain state and federal bills and appropriations, especially relating to special education and vocational rehabilitation.

Of course, much more activity coming under the heading "promotion" could be listed. There are always numerous opportunities for advancing the work that come in line with the performance of regular duties.

Coming under the classification "promotion" in its broader sense, is the opportunity for service occasioned by the executive director having served again on the State Special Education Advisory Committee by appointment of the Superintendent of Public Instruction, on the State Rheumatic Fever Control Committee by appointment of the Council of the State Medical Society and on the Board of the Michigan Epileptic Clinic, also participating on the annual nation-wide Staff Conference and Workshop for Crippled Children executives sponsored by the National Society.

Cerebral Palsy Services

A total of nine cerebral palsy two-day clinics were organized and conducted in the following cities: Kalamazoo, Battle Creek, Lansing, Jackson, Ypsilanti, Flint, Bay City, Traverse City and Marquette. Each clinic serves children from surrounding counties. A total of 259 children were examined, of which ninety-two were rechecks for evaluation. Dr. Meyer A. Perlstein of Chicago



Walking—At Last

is the Society's examining physician and consultant.

Complete medical histories are required on each child, together with psychometrics and other tests to determine the nature and extent of speech and hearing difficulties.

Up until two years ago, the Society's staff was wholly responsible for the securing of medical histories, tests, making local arrangements for the clinic, providing transportation and setting up the clinic schedule; now, in all of this, able assistance is afforded by the nursing staff of our Michigan Crippled Children Commission. We are truly grateful for this one of many evidences of the Commission's co-operation, and it is worth noting that many of the children following the clinic are served by the Commission in terms of medical treatment and the acquiring of braces. It also should be mentioned that for each clinic, the Michigan Crippled Children Commission furnishes a medical stenographer.

Never is a clinic conducted without the approval of the county medical society, and children are only accepted when referred by a practicing physician. Following the clinic, a complete medical history, together with the consultant's diagnosis and recommendations, are referred to the physician for treatment. Doctor-family relationships are strictly maintained.

It should be stated that the public health nurses of the state give freely of their time in the matter of securing medical histories and follow-up.

The clinics are only open to representatives of the Society's local affiliated units and professional workers, such as, doctors, nurses, special teachers, psychologists, physical therapists, and occupational therapists. In consequence, the clinics are educational in value, especially since the consultant details the condition of each child with causes, effects and possible treatment. Never is a child examined before parents of other children.

This service is free and the cost of the clinics is provided jointly by the Michigan Society and its affiliated units.

Three successful day camps for cerebral palsy children were conducted in Detroit, Flint and Grand Rapids.

There are five Cerebral Palsy Parent Groups sponsored either wholly or jointly by the Society's local units. For these groups, the Michigan Society has provided program participants and material.

A successful nursery school for cerebral palsy children sponsored jointly with our Genesee County local unit and others was organized in Flint two years ago as a definite part of the school system. The Genesee County chapter furnishes the transportation and part of the salary of the physical therapist. It is encouraging to note, that five of the children enrolled two years ago, have now graduated to regular grades.

Occupational Therapy Service

The Society now maintains a staff of eight occupational therapists and there has recently been added a person in charge of merchandising. Heretofore much of the occupational therapists' time was consumed in merchandising, which involves, collecting finished products, pricing them, arranging for sales outlets, and conducting the sales. In consequence, actual occupational therapy service to homebound lagged considerably.

The occupational therapists serve a comparatively large number of physically handicapped persons who pose serious problems, and who previously were neglected. This year 567 homebound clients were served. They represent, of course, the serious type of crippling conditions, such as cerebral palsy, muscular distrophy, multiple sclerosis, arthritis, and other severe orthopedic conditions. The average case-load per occupational therapist is seventy—far too many, especially when so much travel is involved. Forty is considered a good case-load where practically no travel is involved.

With eighty-three counties, eight occupational therapists cannot nearly supply the needs and demands. Each therapist's territory embraces an average of eleven counties, therefore, the large number of referrals must be screened and the time of the therapist devoted to those most in need and who can best be helped.

A very excellent plan of co-operation now prevails with our Michigan State Rehabilitation Service, whereby the Society is reimbursed on a fee basis, this past year to the extent of $1,523.94. This plan prevails now in the Wayne Out-County area, Genesee and Oakland counties. An enlarged plan is now being devised whereby the same service will apply throughout the entire state.

The therapists work their areas from the most convenient center; as of now they are: Marquette, Traverse City, Flint, Saginaw, Lansing, Wayne Out-County, Grand Rapids, and out of Detroit headquarter's office.

There is one permanent sales outlet conducted by the Genesee County Chapter in Flint and periodic sales have been conducted throughout the year.

Initial supplies and equipment are furnished by the State Society, local units, and other co-operating agencies; when the homebound worker becomes proficient, he furnishes his own.

Where the products are sold, $.90 on the $1.00 is returned to the homebound client. They do not earn a lot, but even a little means much to them when it is considered that they earned very little or nothing before. This year $2,534 was earned by the homebound clients, and here it must be stated that the products of a large number of those served were not yet suitable for merchandising.

Because of its very nature and need, this service

is greatly appreciated by professional workers, our local units and the general public.

Rheumatic Fever Service

It was through the efforts of the Michigan Society in co-operation with the Michigan State Medical Society that a nationally recognized Rheumatic Fever Control and Diagnostic Center Program was established in Michigan. Up until this past year, this program was entirely financed by the Michigan Society, but now the Michigan Heart Association has very largely assumed the financial responsibility. However, the Michigan Society still maintains its interest and support by contributing whatever it can afford financially and by being active in the co-administration of the program.

There are now thirty rheumatic fever control centers established, and during the past year 1,032 new cases were examined and 232 rechecks.

Epileptic Project

The Epileptic Clinic, originally sponsored jointly by the Society and the Detroit Chapter, is making a very splendid contribution in the control of convulsive disorders, and it is now making definite plans to project its program throughout the state, thus exemplifying its official name—the Michigan Epileptic Clinic. It has become so recognized that the state has a considerable part in financing the service of the professional staff with tax monies. It also receives support from the United Health and Welfare Fund of Michigan. We are happy to report that the Michigan Society by being represented by three directors and the executive director on its board, has a definite part in the development of this splendid program.

Camping

The Society has promoted summer recreational activities through its local affiliated units and afforded financial assistance to Bay Cliff Health Camp which this past summer had an enrollment of 173 children from fifteen counties.

The Summer Day Camps of Cerebral Palsied Children have already been reported on under "Cerebral Palsy Services."

Scholarships

Special teacher-training agencies and local school district officials appreciate the fact that the scholarship policy of the Michigan Society has helped materially to alleviate the shortage of professionally trained persons. In fact, they know that without it, many physically handicapped children would not be receiving the benefits of a public school education adapted to their particular needs. During the past year twenty-eight special teachers have been trained or are now under training through the financial aid of the Michigan Society. The twenty-eight students, at a cost of $3,982.50, have been trained to serve under the following specialized classifications: orthopedic, six; speech correction, five; deaf and hard of hearing, thirteen; blind and partial seeing, three; occupational therapy, one.

A shortage still prevails. The Society provides grants, not loans. Candidates are selected on the basis of previous training and general fitness. Grants are made on the basis of recruitment and not on the applicant's need of financial assistance. It directly helps the trainee, but only as a means to an end, namely, serving untold numbers of handicapped children.

Fund Raising—Easter Seal Sale

All things considered, the 1950 Easter Seal sale was successful. The total gross receipts were $10,424.14 less than 1949. This was occasioned by the fact that the Seal sale did not prevail in the Detroit City Schools. If it had, and the returns from this source equaled that of 1949, the 1950 Easter Seal sale would have exceeded the 1949 gross by $3,000.00.

A detailed report on a local and state-wide basis is available and is being distributed at this meeting, as well as to all directors of the Society and the Easter Seal sale committees throughout the state. Therefore, it is unnecessary to duplicate it in this report.

Every evidence points to the fact that the Easter Seal sale possibilities have by no means been exhausted. The answer to a successful Easter Seal sale is complete coverage, affording everyone the opportunity to contribute.

The state society furnishes all committees with Easter Seal supplies, including stationery and all printing for local units, free of charge. The Seal sale is big business as evidenced by the list of supplies received, prepared, distributed and furnished free.

A total of 1,103,000 letters of appeal were printed, together with the same number of both the outside and enclosure envelopes at Society

headquarters. This represents a tremendous task where it is realized that sixty-eight different sets of printing jobs were involved. The letters were also folded at state headquarters for local use ready for enclosing.

The material ranging from billboard posters to school packets totaled 3,425,044, and in addition, 112,240,000 Easter Seals. Approximately 10,000 pieces of organization and publicity material was distributed by state headquarter's office.

Local Services

The executive director's report of last year contained a detailed description with costs of the varied services rendered by the Society's affiliated units. Through our field service trips we have evidence that the very same splendid conditions prevail. Last year's report of local services was based on a definite study and a similar study will be initiated as soon as possible after the close of this convention.

Clearing House

Naturally all of the work briefly described in this report calls for considerable planning and judgment and necessitates much stenographic, accounting and general clerical work.

Indeed, headquarters is a veritable clearing house. There is considerable correspondence; in fact, during the past year, an average of twenty-seven letters a day was received requiring the attention of the executive director and the department heads.

Our clinical and case-work requires the services of one full-time stenographer, the Seal sale department another, and the field service and occupational therapy work another. The executive director's secretary is also bookkeeper and office-manager.

Conclusion

It has been an extremely busy year; in some respects a strenuous one, mainly due to confusions occasioned by new promotional and organizational developments in the field of services to the physically handicapped.

This report would be remiss if it did not include an expression of appreciation to the board of directors of the Society, and especially to the executive committee, which has faithfully met its obligations and assisted materially in the furtherance of the program. Especially do we wish to thank our president and treasurer for their frequent personal attention and guidance in matters of importance.

The staff has attempted to render the best possible services, and if its efforts have been successful, it is largely due to the splendid help and co-operation received from everyone concerned, especially our local friends throughout the state.

ADRENAL CORTEX

(Continued from Page 178)

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Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

SECOND COMMISSIONER'S CONFERENCE CALLED

Michigan's fifty-five local health officers will gather in Lansing April 4, 5 and 6 for their second annual Commissioner's Conference to consider how the public health programs of the state are being and should be conducted.

The health officers come to Lansing at the invitation of State Health Commissioner Albert E. Heustis, who feels that the people who take the public health program directly to the people are the ones who best know the health needs and wants of the people.

Already the health officers of the state are dividing themselves into five committees dealing with different fields of public health to prepare the agenda for discussion.

In the Conference to be held in the offices of the Michigan Department of Health, health directors will meet in executive session. While members of the State Health Department staff will be available for consultation, they will attend and participate in discussion only upon request.

The Commissioner's Conference is expected to result in recommendations to Commissioner Heustis for the improvement of the public health activities of the state. The Conference is patterned after the State and Territorial Health Officers Conference which the federal law requires the Surgeon General to call.

The First Commissioner's Conference held in February, 1950, resulted in about fifty recommendations for the improvement of the state public health program, a large share of which have already been put in practice.

* * *

To meet the curtailment of federal appropriations for public health activities, the Michigan Department of Health has found it necessary to reduce its services to the physicians and people of the state.

Late in October, the United States Public Health Service announced retroactive reductions in the already approved federal budgets which had gone into effect the first of July 1950. Efforts to get the cuts restored were futile.

These reductions have made it necessary for the Michigan Department of Health to decrease its services as follows:

1. Three of the Department's five federally financed tuberculosis case finding mobile x-ray units were taken out of service and stored. The six employes involved were dismissed.

2. The notification of the registration of birth which the Department has mailed routinely to parents and local health offiers and which is important in making the necessary corrections in state vital records was discontinued. The five employes involved were dismissed. (Last year this mailing served as medium for distribution of material on immunization of children.)

3. Field consultation in health education provided local health departments, schools, and community groups was abolished. The multilithing of health education material and the necessary record forms for conducting the Department's business has been reduced. Two positions involved were abolished.

4. Public health nursing consultation, provided local health departments and counties without local health departments, in the control of communicable disease and in improving the health of mothers and children has been reduced. Two positions were abolished.

5. Health protection for Michigan's industrial workers has been reduced. Three positions were abolished. This comes at a time when Michigan's industrial health protection needs are great and follows a year in which Michigan industry spent over $2,000,000 of its own money to voluntarily comply with the recommendations of the Michigan Department of Health in protecting the health of industrial employes.

6. Routine quantitative Kahn tests have been discontinued. These tests will be performed only on special request on problem diagnostic cases.

7. Complement fixation tests for syphilis have been discontinued.

8. Cultures for the gonococcus will no longer be made.

9. Cultures for M. tuberculosis have been discontinued.

10. Streptomycin sensitivity testing of M. tuberculosis will no longer be done.

The Controller of the Department of Administration of the State of Michigan has been requested to take whatever steps are necessary to restore these services by state appropriation.

* * *

Ray Faust, Chief of the Water Supply Section of the Michigan Department of Health, has resigned to accept a position as Executive Assistant Secretary of the American Water Works Association. Faust has been with the Division of Engineering since 1923 and Chief of Water Supply since 1944. He begins work in New York, February 1.

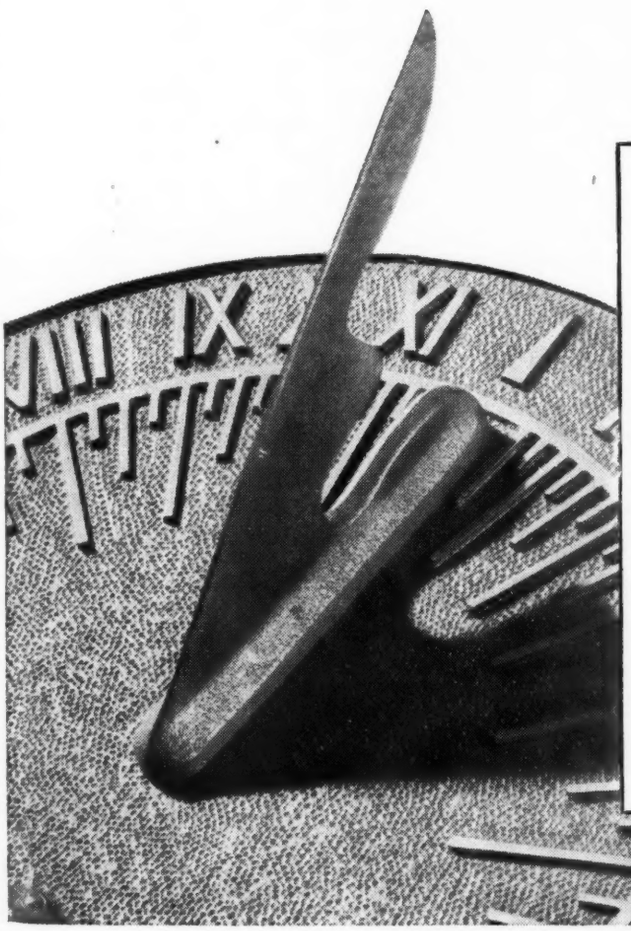
T. L. VanderVelde will succeed Faust as Chief of the Water Supply Section.

* * *

William Gebhardt, biochemist in the Division of Laboratories, Michigan Department of Health, has been granted a six weeks' leave of absence to serve as a consultant on vaccine preparation for the Pan-American Sanitary Bureau of the World Health Organization in Peru, Ecuador and Colombia. Gebhardt's temporary assignment began January 14.

(Continued on Page 200)

HABIT TIME OF BOWEL MOVEMENT



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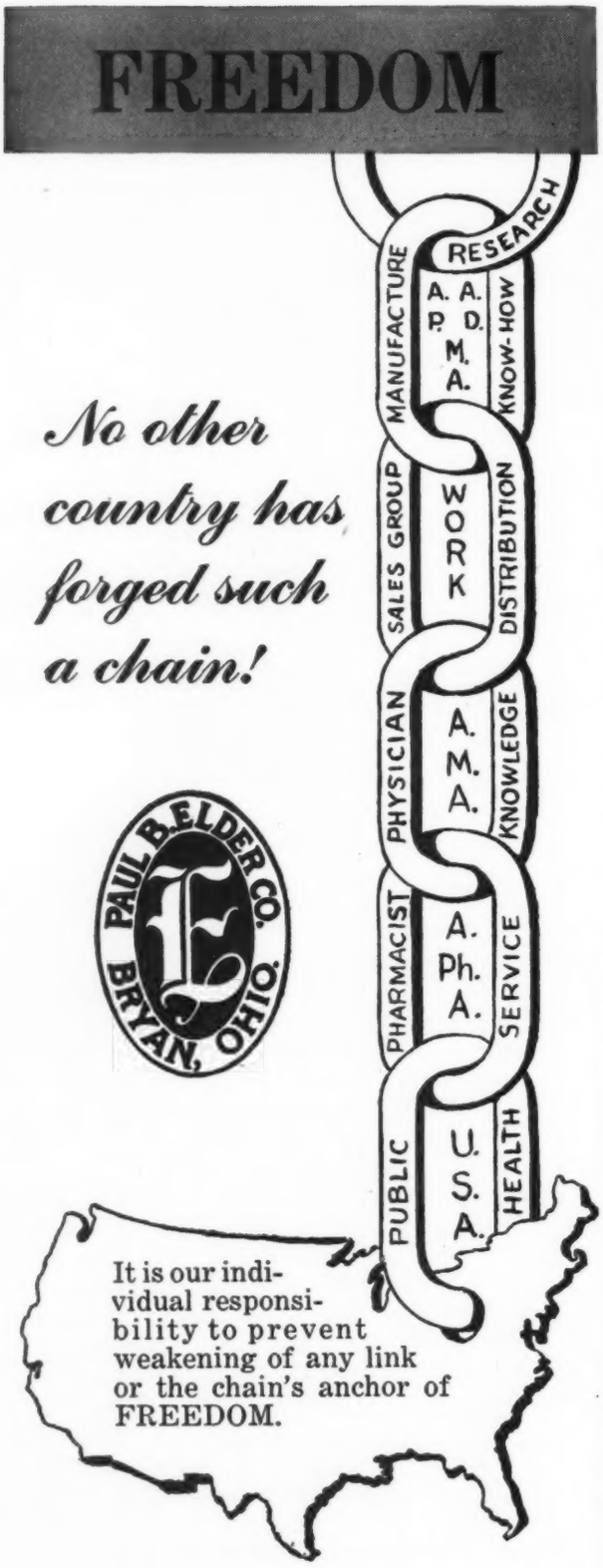

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(Continued from Page 198)

John Hepler, Director of the Division of Engineering, has been granted two months' leave of absence to serve as Consultant in Sanitary Engineering to the Commissioner of Health of Puerto Rico and lecture to the School of Tropical Medicine of the University of Puerto Rico in San Juan. He will observe the operation of the Sanitation Division of the Puerto Rico Health Department and make recommendations for its reorganization, and will also present papers at the meeting of the Puerto Rico Public Health Association meeting.

W. F. Shephard will be acting director of the Division of Engineering of the State Health Department until Mr. Hepler returns in mid-March.

* * *

A new antibiotic which may well rival the sulfas, penicillin and streptomycin in its effectiveness against disease has been discovered in the Laboratories of the Michigan Department of Health, Dr. Albert E. Heustis, State Health Commissioner, has announced.

The antibiotic is a product of a peach-colored soil mold, the 3,590th of 17,000 molds tested in the Department's four-year-old antibiotic research program.

Based on its structural form, it has been given the name synnematin (pronounced sin NEE ma tin) which means "fused thread."

Synnematin kills the organisms of several diseases in test tubes and in animals. Tests in humans have not been done.

The new antibiotic is effective against diseases caused by certain Salmonella organisms for which no present adequate treatment exists. Salmonella organisms are the cause of certain types of diarrhea, including the type which causes the deaths of numerous Michigan infants in hospital nurseries. The Salmonellas are also responsible for certain types of septicemia and for typhoid fever.

In the test tube it appears that synnematin may also be effective against tuberculosis, undulant fever and certain streptococcus organisms.

Credit for the discovery is given to four of the Department's young researchers: Dr. Russell Gottschall, bacteriologist; Dr. John M. Roberts, mycologist (mold expert); Dr. Lucile Portwood, chemist; and Jay C. Jennings, bacteriologist.

While much additional testing in animals and much purification remains to be done before production for human use can be undertaken, the Department has applied for a patient on the antibiotic in the name of the State of Michigan.

Clinical improvement following chemotherapy without complete roentgenological clearing of the suspected area in an adult indicates at least a tentative diagnosis of primary bronchiogenic malignancy until proved otherwise.

* * *

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November 14, 1950

Dr. L. Fernald Foster
Sec'y Michigan State Medical Society
2020 Olds Tower
Lansing 8, Michigan

My dear Dr. Foster:

With the approval of Dr. Roscoe Cavell, Chairman of the Wayne County Medical Advisory Committee to the Michigan Epilepsy Center, we are sending the following résumé of recommendations made at a meeting of physicians, familiar with the Center Program, on October 26, 1950:

1. That the Michigan Epilepsy Center continue its present cross-sectional studies of patients for referring physicians. But that, in addition, the Center Clinical, treatment-investigation Team accept from physicians a few cases (in whatever area of epilepsy it decides) for full treatment in all phases of the illness over a long period of time. This is in keeping with the original outline of the Epileptic Clinic, Inc., presented to the Wayne Co. Medical Society and approved February 7, 1947.

2. That we extend center services out-state: either by organization of medical consultant groups as traveling clinics to meet with local physicians for consideration of their patient problems; or utilization of portable EEG equipment to serve local physicians and their patients, primarily in creating an awareness of the incidence of hitherto unrecognized cases of epilepsy.

3. That the center medical staff approach the Wayne University and Ann Arbor Medical Schools about a joint endeavor with medical student and postgraduate educational programs to emphasize the symptom complex of epilepsy and its multiple treatment approach.

Those present were: Drs. F. Wm. Cutts, Charles G. Jennings, F. S. Perkin, J. L. Whelan, R. W. Cavell, H. W. Bird, and the undersigned.

It is our desire to proceed at once with the implementation of the above.

Sincerely,

A. J. DERBYSHIRE, Ph.D.
President
MRS. CLARE B. KIDDER
Executive Secretary

GORGAS HOSPITAL
Ancon, Canal Zone

Dr. Wilfrid Haughey, Editor
The Journal of the Michigan State Medical Society
610 Post Building
Battle Creek, Michigan

Dear Doctor Haughey:

The members of the Staff of Gorgas Hospital as well as the Medical Librarian wish to express their thanks and appreciation for your contribution of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, which you so kindly sent to us during the past few years. We trust that our medical library will continue to receive copies of your state medical publication.

Sincerely,
CLIFFORD G. BLITCH
Superintendent

"THE NEW LOOK"

The first issue of *The Journal of the American Medical Association* for January 6, 1951, has a new look. The type is different. The make-up of the cover is different. The mast head and the top page line has been changed. The type in the original articles is slightly larger and we believe much clearer and easier to read. We like the new look very much.

* * *

AIR POLUTION INSTITUTE

Michigan municipal officials will learn what air pollution means to municipalities in danger to public health, harm to tourist trade, decreased valuation of property and decreased tax revenue in an Air Pollution Institute to be held at Michigan State College under the auspices of the Division of Industrial Health, Michigan Department of Health and the Continuing Education Division and School of Engineering of the College, March 7 and 8.

How to correct or mitigate the effects of air pollution through engineering will be considered in addition to model ordinances.

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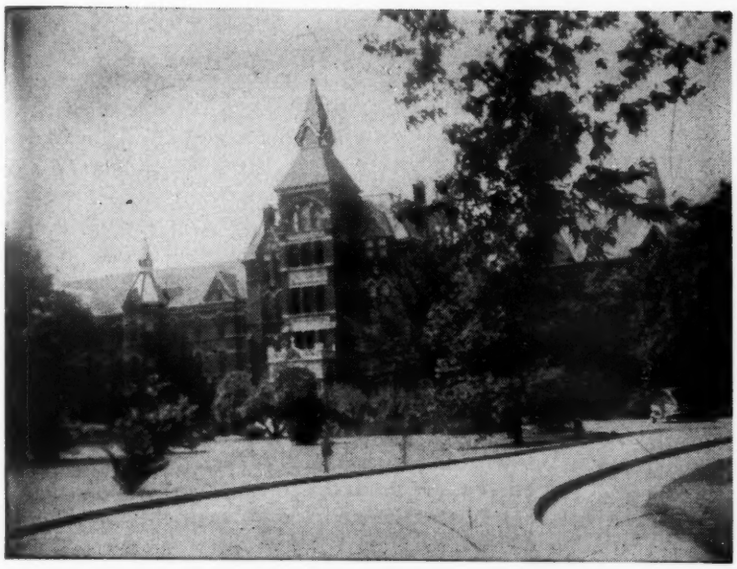

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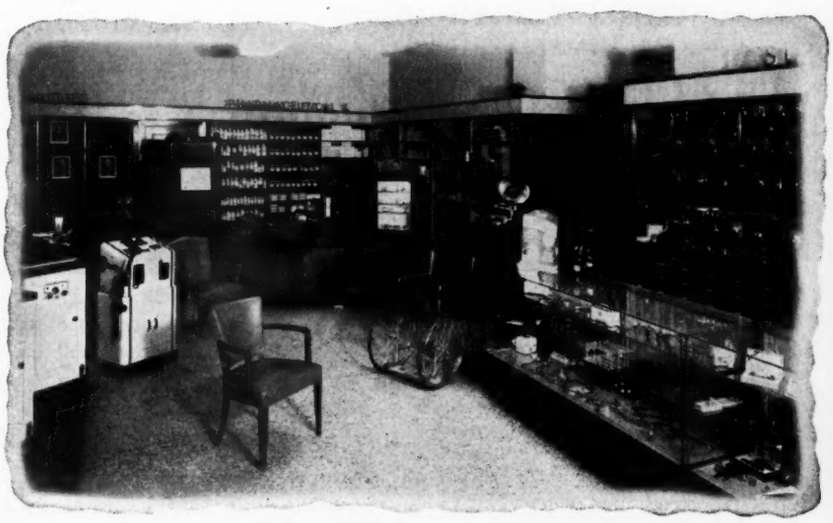

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. . . . . NEWS MEDICAL

R. S. Sykes, D.D.S.

Evarts A. Graham, M.D., St. Louis, will deliver the Fourth Annual Sykes Lecture, a feature of the 1951 Michigan Postgraduate Clinical Institute. The Lecture is scheduled for Thursday noon, March 15, in the English Room of the Book-Cadillac Hotel, Detroit.

The Sykes Lecture was established in 1948 through a grant from R. S. Sykes, D.D.S., of Muir, Michigan, and annually presents outstanding authorities in the cancer field. The first lecture was given by Frederick A. Coller, M.D., Professor of Surgery, University of Michigan Medical School. Harry S. N. Greene, M.D., Professor of Pathology, Yale University School of Medicine, delivered the second lecture; William Lewis Brosius, M.D., Detroit, gave the 1950 lecture.

* * *

The National Society for Crippled Children and Adults will hold its 1951 convention in Chicago, October 3-6, at the Palmer House. For copy of the program write Secretary L. J. Linck, 11 S. LaSalle Street, Chicago 3, Illinois.

UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

THE DEPARTMENT OF POSTGRADUATE MEDICINE

BRIEF REVIEW COURSES FOR PRACTICING PHYSICIANS

1951

Internal Medicine

Diseases of the Heart	March 19-23
Endocrinology and Metabolism	March 26-30
Rheumatic Disease	April 2-6
Allergy	April 9-13
Diseases of Blood	April 16-20
Diseases of Gastro-intestinal Tract	April 23-27
Recent Advances in Therapeutics	May 3-5
Electrocardiographic Diagnosis	August 27-September 1
Neurology, Clinical	May 14-17
Obstetrics and Gynecology	Febrary 19-March 3
Ophthalmology Conference	April 23-25
Pediatrics	February 28-March 3
Roentgenology, Diagnostic	April 16-20

Further information and application blanks may be obtained from Dr. H. H. Cummings, Chairman, Department of Postgraduate Medicine, University Hospital, Ann Arbor, Michigan.

The American Trudeau Society (Medical Section of the National Tuberculosis Association) is sponsoring a postgraduate course in Pulmonary Diseases at Marquette University School of Medicine, Milwaukee, Wisconsin, March 26-31, 1951. For program write Wisconsin Anti-Tuberculosis Association, 1018 N. Jefferson St., Milwaukee 2, Wisconsin.

* * *

The American College of Allergists will hold its seventh Annual Meeting at the Edgewater Beach Hotel, Chicago, February 12-14. In addition, the College is scheduling its "Collegiate Instructional Course" on the three days preceding its Annual Meeting (February 9-10-11) with twenty-five outstanding allergists on the program. Fee for the Instructional Course is $35.

For further information on both the annual meeting and the Instructional Course, write American College of Allergists, in care of Secretary Fred Wittich, M.D., La-Salle Medical Bldg., Minneapolis, Minn.

* * *

Wayne University College of Medicine announces its 1951-52 Postgraduate Course in Basic Ophthalmology. This will be presented beginning in September, 1951, and running for nine months, meeting from 8:00 a.m. to 5:00 p.m. on week days and from 8:00 a.m. to 12:00 noon on Saturdays. Mornings are spent in lectures and laboratories; afternoons, in the clinics of hospitals affiliated with Wayne College of Medicine. Tuition for the course is $900; class limited to ten doctors of medicine.

For complete information and application blank, write to Postgraduate Department, 1512 St. Antoine St., Detroit 26.

* * *

The Michigan Arthritis and Rheumatism Foundation's Medical Advisory Committee will hold a meeting at the Book-Cadillac Hotel Thursday, March 15, during the Michigan Postgraduate Clinical Institute. This will be a dinner meeting followed by a business session at which a report will be made on each of the various research projects which the Foundation is assisting, and also a discussion of any new projects which are anticipated during the next year.

* * *

The American Congress of Physical Medicine will hold its twenty-ninth annual scientific and clinical session September 4, 5, 6, 7 and 8, 1951, inclusive, at the Shirley-Savoy Hotel, Denver, Colorado. Full information may be obtained by writing to the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois.

(Continued on Page 206)

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(Continued from Page 204)

Michigan Authors.—

Claire L. Straith, M.D., F.A.C.S., of Detroit, published an article, "Plastic Surgery in Dermatologic Lesions," in *The Reprint from The Southern Surgeon,* April, 1950.

William Arendshorst, M.D., and **Harold F. Falls, M.D.,** of Ann Arbor published an article, "Role of the Adrenal Cortex in Treatment of Ocular Disease with Pyrogenic Substances," in the AMA *Archives of Ophthalmology,* November, 1950.

Charles G. Johnston, M.D., F.A.C.S., of Detroit, published an article, "Hemorrhage from the Upper Gastrointestinal Tract," in *Surgery, Gynecology and Obstetrics,* December, 1950.

H. Saul Sugar, M.D.; J. E. Webster, M.D., and **E. S. Gurdjian, M.D.,** of Detroit, published an article. "Ophthalmologic Findings in Spontaneous Thrombosis of the Carotid Arteries," in the AMA *Archives of Ophthalmology,* December, 1950.

Charles J. France, M.D., and **Osborne A. Brines, M.D.,** of Detroit, published an article, "Mesenchymal Tumors of the Stomach," in the AMA *Archives of Surgery,* December, 1950.

Carey P. McCord and **Russell L. Robertson, M.D.,** of Detroit, published an article, "The Appraisal of Detergency Through Radioactive Isotopes," in the *Industrial Medicine and Surgery,* December, 1950.

Robert M. Zollinger, M.D., and **Stanley O. Hoerr, M.D.,** published an article "Indications for Surgery in Gall-Bladder Diseases," appearing originally in *The Journal of the Michigan State Medical Society,* March, 1950, and was reprinted in *The General Practitioner of Australia & New Zealand,* October 15, 1950.

Clifford D. Benson, M.D., and Harvey R. Sharpe, Jr., M.D., Detroit, are authors of an original article "Recent Experiences with Intestinal Resection in Infants and Children" which was published in *Archives of Surgery,* November, 1950

H. Marvin Pollard, M.D., and Arnold Wollum, M.D., Ann Arbor, are authors of an original article "Role of Transfusions in the Management of Gastric Hemorrhage" which appeared in JAMA of January 6, 1951.

David J. Sandweiss, M.D., Harry C. Saltstein, M.D., S. R. Scheinberg, M.D., Detroit, et al are authors of an original article, "Hormone Studies in Peptic Ulcer" which appeared in JAMA of December 23, 1950.

D. B. Ruskin, M.D., Saginaw, published an article, "Comparative Results in Seizure Control Using Phenobarbital Dilantin, and Mesantoin," in *American Journal of Psychiatry,* December, 1950.

Edgar A. Kahn, M.D., Ann Arbor, published an article, "Direct Observation of Sweating in Peripheral Nerve Lesions; Its Use as a Simple Diagnostic Test," in *Surgery, Gynecology and Obstetrics,* January, 1951.

Charles L. Schneider, Ph.D., M.D., of Detroit, published an article "Fibrin Embolism (Disseminated Intravascular Coagulation) with Defibrination as One of the End Results, During Placenta Abruptio," in *Surgery, Gynecology and Obstetrics,* January, 1951.

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FIVE OF EVERY SIX CASES of pulmonary tuberculosis admitted to Michigan sanatoriums during 1949 were in advanced stages on admission. Nearly half of them were far advanced and more than a third were moderately advanced.

This is the record of 4,318 admissions to Michigan sanatoriums in 1949. Of this total 2,081 (48.1 per cent) were far advanced cases; 1,561 (36.1 per cent) were moderately advanced; 518 (12 per cent) were minimal; and 158 (3.7 per cent) were primary. This distribution varies less than one-half of 1 per cent from the record for sanatorium admissions in 1948. It is likely that the 1950 record, when reports are complete, will be found to be much like it.

In tuberculosis control, the need for both *early diagnosis* and *prompt treatment* are still urgent.

MICHIGAN TUBERCULOSIS ASSOCIATION

LeMoyne Snyder, M.D., Lansing, was guest speaker at the 26th Annual Meeting of the Staff and Board of Trustees of Alexander Blain Hospital, Detroit. The meeting was held at the Detroit Club on November 29. Dr. Snyder's subject was "Medicine and Homicide Investigation."

* * *

Insurance people who worked so hard to bring the facts before the public in Massachusetts and in Washington have proved that intensive education can do the job. They have proved that when the industry is presented with threats to its well-being the battle for its preservation is not a lost cause but is one that can be fought and won. Public education is also the answer to the defeat of legislative proposals which threaten not only the insurance business but free enterprise in general, independent initiative and freedom of choice.

—Insurance Economics Surveys, December, 1950.

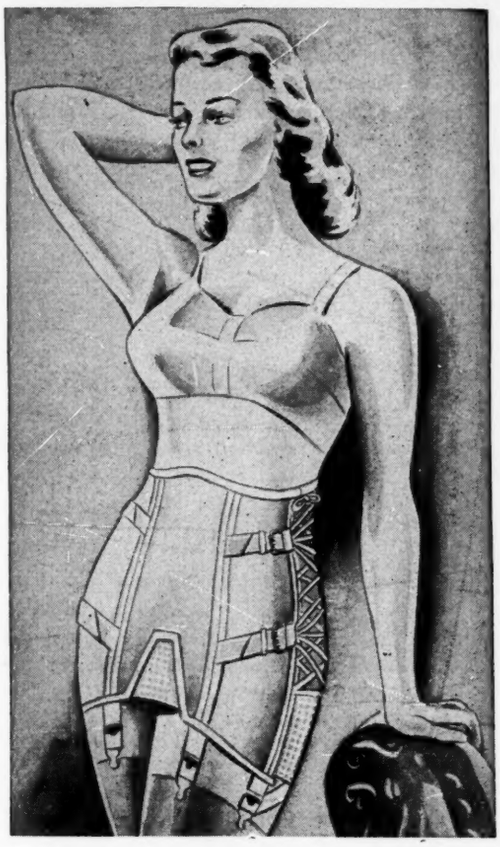
* * *

H. S. Collisi, M.D. (formerly of Grand Rapids), has just been appointed Manager and Chief of Professional Services of the new Veterans Administration Hospital in Erie, Pennsylvania. Congratulations, Dr. Collisi!

* * *

G. W. Slagle, M.D., Battle Creek, **Wilfrid Haughey, M.D.,** Battle Creek, and **R. J. Hubbell, M.D.,** Kalamazoo, representing the Michigan State Medical Society, have been appointed members of an Advisory Committee to the State Social Welfare Commission. The purpose of this Committee is to advise the Welfare Commission concerning medical problems which arise, especially in connection with the newly inaugurated Aid to the Disabled program.

J. K. Altland, M.D., Lansing, representing the Michi-



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gan Department of Health, and **Milton Shaw, M.D.,** Lansing, representing the Michigan Social Welfare Commission, also are members of this Advisory Committee, appointed by the State Social Welfare Commission.

The Committee's over-all function is in assisting the Social Welfare Commission to provide an adequate medical program for the recipients of old-age assistance.

* * *

The American Board of Clinical Chemistry, Inc., has been established by representatives of the American Chemical Society, the American Institute of Chemists, and the American Society of Biological Chemists "to encourage the study, improve the practice, elevate and establish standards and advance the science of that branch of chemistry known as 'clinical chemistry'."

Two Michigan men are charter members of the Board of Directors: Oliver H. Gaebler, Ph.D., Detroit, and Clarence W. Muehlberger, Ph.D., Lansing.

* * *

The University of Michigan School of Public Health, Ann Arbor, was granted $358,290 (under the direction of Thomas Francis, Jr., M.D., Professor of Epidemiology) by the National Foundation for Infantile Paralysis, as part of a $1.5 million program in March of Dimes funds for infantile paralysis research and professional education.

* * *

The Commission on Chronic Illness announces a national conference to explore ways of preventing chronic disease, to be held in Chicago March 12-14, 1951. For copy of program write the Commission Staff Director, 535 N. Dearborn Street, Chicago 10, Illinois.

* * *

The Ion Optical Company announces its removal to a new location in Detroit, to 40 W. Adams Ave. (next to the Adams Theater). The Ion Optical Company is the successor firm to the Uhlman Optical Company, in Detroit since 1916.

* * *

L. Fernald Foster, M.D., Bay City, MSMS Secretary, spoke to the Saginaw Junior Chamber of Commerce on "Socialism and Medical Care" on October 16, 1950; he addressed the Bay City Exchange Club on October 26 on "The National Health Act"; the Bay County Republican Club, October 30, on "Socialized Medicine"; he spoke over Radio Station WJR on November 2, his subject was "The Four Falsehoods"; Dr. Foster spoke to the Central High School Pre-science Students on November 2 on "Choosing Medicine as a Profession"; the Cadillac Woman's Club and Medical Auxiliary on November 21 on "Socialism and Health"; the Congregation Club, Cadillac, November 21, on "Our Health"; and the Health Officers Association of Grand Rapids, November 29, on "Civil Defense"; the Saginaw Life Underwriters Association on December 8. His subject was "Socialized Medicine and Voluntary Insurance."

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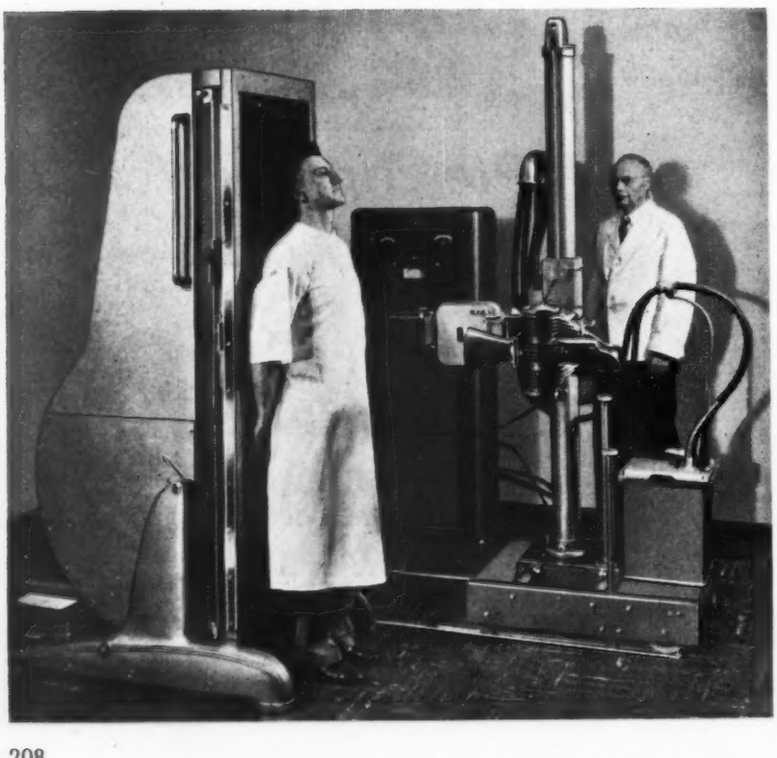

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Genessee County Medical Society's Sixth Annual Cancer Day will be held at Hurley Hospital, Flint, Michigan, on Wednesday, April 18, 1951.

The program is as follows:

"The Diagnosis and Treatment of Tumors of the Bone"
Bradley L. Coley, M.D., Attending Surgeon, Memorial Hospital; Assistant Professor of Clinical Surgery, Cornell University Medical School, New York City.

"Radioactive Isotopes"
Robert R. Newell, M.D., Director, Departments of Radiology and Radio-Biology, Stanford University Medical School, San Francisco, Calif.

"Cancer of the Thyroid"
George M. Curtis, M.D., Chairman and Professor of Surgical Research, Medical Department, Ohio State University, and Starling-Loving University Hospital, Columbus, Ohio.

"The General Aspects of the Cancer Problem"
Arthur W. Allen, M.D., Chief, East Surgical Service, Massachusetts General Hospital; Lecturer in Surgery, Harvard Medical School, Boston, Mass.

"Cancer of the Kidney and Bladder"
Reed M. Nesbit, M.D., Professor of Surgery, Medical Department, University of Michigan; Chief of Urological Service, University Hospital, Ann Arbor, Mich.

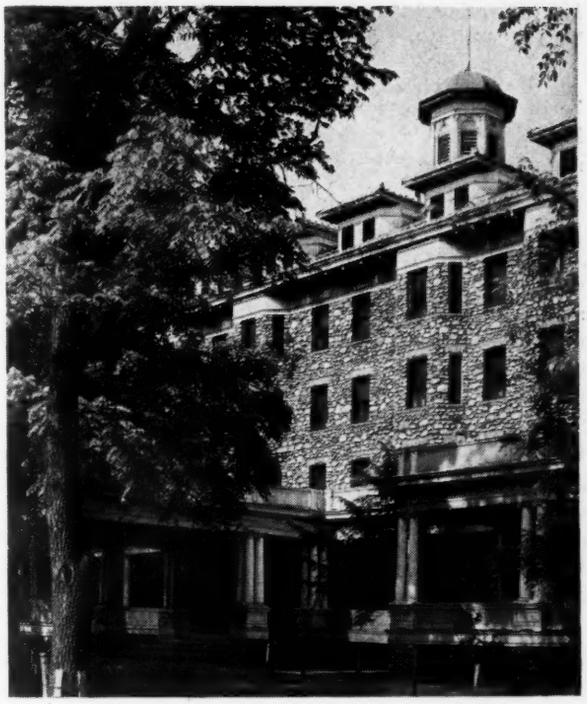
All members of the Michigan State Medical Society are cordially invited to attend. No registration fee.

* * *

Institute of Industrial Health.—General Motors has begun a $1,500,000 research project to promote better health for its 446,000 employes and those of all American industry. It has joined with the University of Michigan in establishing the Institute of Industrial Health, whose objectives will be research, education and service in industrial medicine, health and safety. General Motors maintains 106 medical departments in as many operating units and employs 125 physicians and 675 nurses, technicians and other medical personnel, a total staff of 800 to carry out the objectives of its overall health maintenance program. The institute will provide fellowships, scholarships and hospital residencies in industrial medicine, health and safety. Of the $1,500,000 granted the University for the institute, $500,000 will be used as needed for equipment. In addition, an annual payment of $100,000 for 10 years will be made by G.M. for research and to meet the expenses of fellowships, scholarships, added faculty and other personnel, a clinic and publications, and refresher courses for doctors, nurses and personnel in auxiliary services. The institute, to begin operations within the next few weeks, will be under the supervision and control of the board of governors to be appointed by the University's Board of Regents.

* * *

President of the newly organized Student American Medical Association is Warren R. Mullen of Jackson, Michigan, a student at the University of Michigan Medical School, Ann Arbor. The SAMA delegates, representing forty-eight U. S. medical schools with a total enrollment of 15,855, met in Chicago, December 28 and 29, 1950, for its first annual session.



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Complete medical facilities give assurance that existing abnormalities will be detected and properly cared for. The competent resident nursing staff understands the problems of aging. Physicians are invited to refer their geriatric patients here for the finest of care that can be given them. Special orders will of course be carried out meticulously.

Battle Creek Sanitarium has been offering its outstanding services continuously for 85 years; James T. Case, M.D., is president of the Board of Trustees.

Wire or call collect for complete information on availability of accommodations.

THE BATTLE CREEK SANITARIUM
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NOTICE TO PHYSICIANS USING THE VETERANS PRESCRIPTION PROGRAM

The Michigan State Pharmaceutical Association will be pleased to provide you with free prescription blanks imprinted with the authorization statement. This statement is as follows:

"I am authorized to treat and prescribe for the above-named Veterans Administration's patient."

The use of these blanks saves the writing or printing of the statements by the busy physician, or office personnel. Many doctors have been using this blank since the inception of the V.A. program. Pads of the prescription blanks will be sent upon request by the doctor's office. Direct your correspondence to the Michigan State Pharmaceutical Association, 1510 Olds Tower Building, Lansing, Michigan. Only doctors properly authorized to participate in the home-town treatment of veterans are eligible to use these blanks. Authorization is obtained directly from the Veterans Administration, 310 E. Jefferson Ave., Detroit, Michigan, as has been the established practice.

* * *

The Third Western Institute on Epilepsy will be held in Salt Lake City, Utah, June 15-17, 1951. This meeting will be of wide interest to physicians, public health nurses, employers, teachers, rehabilitation workers, state hospital personnel, educational leaders, etc.

Further information may be obtained by writing to Dr. Harriot Hunter, University of Colorado Medical Center, 4200 East 9th Avenue, Denver, Colorado.

* * *

Thomas H. Cooper, M.D., Port Huron, has been awarded the Venerable Order of the Hospital of St. John of Jerusalem. Congratulations, Dr. Cooper!

* * *

Radiologic Defense.—The eighteenth annual conference of teachers of clinical radiology was held at the Palmer House, Red Laquer Room, Saturday, February 10, 1951. There were two sessions and a luncheon. The program included: Mobilization of Health Resources for Defense, by Norvin C. Kiefer, M.D., H.S.R.B.; The Duties of Physicians in an Atomic Disaster by Brig. Gen. James P. Cooney, M.C., U.S.A. Chief Radiological Branch Military Appliance Division Atomic Energy Commission; Atomic Bomb Effects-Teaching Aids from Armed Forces Institute of Pathology, Robert DeCoursey, MD., Director A.F.I.; Address by C. Edgar Virden, M.D., President A.C.R.; The Diagnosis and Treatment of Radiation Injuries, Comdr. Eugene Cronkite, U.S.N., M.C., Naval Medical Research Institute; Training for the Detection of Radiation Hazards, -Instruments-Personnel, by William Bale, M.D., Biophysics Branch, Atomic Energy Commission; and Radioactive Decontamination by Claude R. Schwob, M.D., Chief of Chemistry Branch, U.S. Naval Radiological Defense Laboratory.

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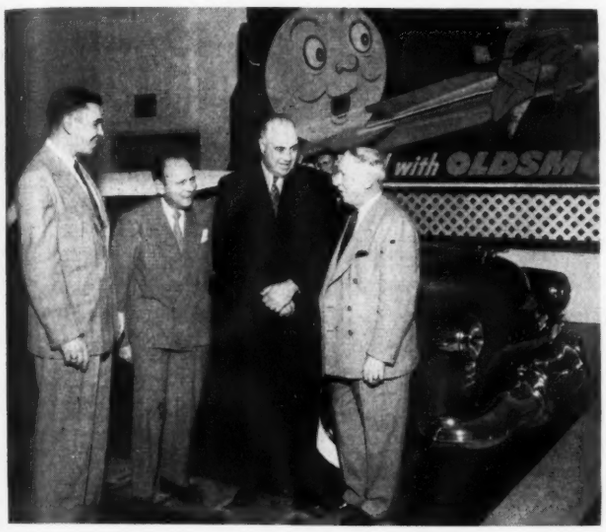
IN-PLANT MEDICAL SOCIETY MEETING

Members of the Ingham County Medical Society again enjoyed the hospitality of the Oldsmobile Division of General Motors Corporation when they held their monthly meeting in the Olds Auditorium on October 12.

The Society was entertained at dinner and given an opportunity to see the medical facilities of this huge industrial plant which employs over 10,000 employes.



S. D. Steiner, M.D., Oldsmobile medical director *(left)*, J. S. Rozan, M.D., president, and Ralph Wadley, M.D., immediate past president of the Ingham County Medical Society, listen to the Olds success story being told by William J. Mahoney, Oldsmobile personnel director.

The Olds division maintains a medical department at the Oldsmobile main and forge plants as well as four strategically located first-aid stations. The medical staff is headed by S. D. Steiner, M.D., with Edward Place, M.D., as his assistant. In addition, the medical department has thirteen nurses, one x-ray technician and two secretaries.

During the first six months of 1950, more than 58,832 visits by Olds employes were made to the various medical stations, stated Dr. Steiner. This amounts to an average of 600 per day.

* * *

The Eighteenth Annual Postgraduate Clinic of the West Side Medical Society of Detroit will be held at the Wayne County General Hospital on Wednesday, April 11, from 10:00 a.m. to 4:00 p.m.

The program will consist of a demonstration of medical and surgical cases. All guest physicians will have an opportunity to examine every patient. The demonstrations will be in charge of Dr. H. Harvey Gass, neurosurgeon; S. E. Gould, pathologist; S. D. Jacobson, medical director; M. M. Musselman, surgical director. All physicians are cordially invited to attend. There is no registration fee.

* * *

Dr. George L. Waldbott, Detroit, Michigan, was elected honorary member of the Spanish Society of Allergy because of his contributions in the field of allergy.

Frequent necessity of cervical repair suggests the practicality of having a BLENDTOME ELECTROSURGICAL Unit in the office or clinic. With this instrument, the doctor is enabled to do a smoother cervical conization. The BLENDTOME cuts and coagulates simultaneously with a blended current. Scar and other tissue is cut through quickly and easily; blood and lymph vessels are almost instantly sealed. The cleaner field results in reduced trauma and operative shock, smoother convalescence and more rapid healing.

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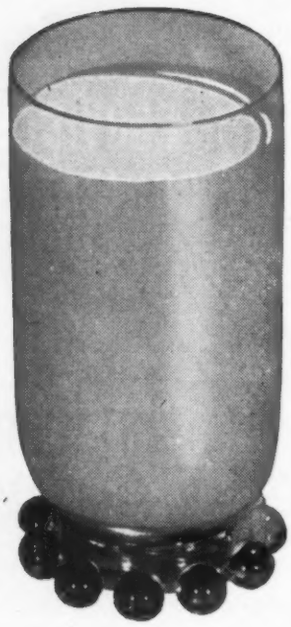

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These are some of the unique values of buttermilk in combatting certain intestinal derangements among infants and adults, in relieving constipation and alleviating stomach disorders. For buttermilk of uniformly high quality, made with pasteurized milk, may we suggest Sealtest Buttermilk?

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Four Fellowships in Industrial Medicine.—The U. S. Atomic Energy Commission will offer four fellowships in industrial medicine for the 1951-52 academic year, continuing a special fellowship program begun last September. The program is administered for the AEC by the Atomic Energy Project of the School of Medicine and Dentistry, University of Rochester, Rochester, N. Y., and fellows are selected by a committee headed by Dr. James H. Sterner, Associate Medical Director of the Eastman Kodak Co. and Consultant in Industrial Health to the AEC.

The purpose of the special fellowship program is to provide advanced training and on-the-job experience to men and women medical doctors in the field of industrial medicine, particularly in relation to the atomic energy industry.

* * *

One Washington writer reported that out of 166 charter members of the Committee for the Nation's Health, at least ninety-two have subversive records, according to the House Un-American Activities Committee. There is an old saying that one bad apple can spoil a barrel, but what if over half of them are bad?

* * *

Student American Medical Association.—Student delegates from forty-eight medical schools throughout the country, with a total membership of 15,855, met at AMA headquarters in Chicago, December 28-29.

The organization will have as its objectives the advancement of medicine; contribution to the welfare and education of medical students; familiarization of its members with the purposes and ideals of the medical profession, and preparation of its members to meet the social, moral and ethical obligations of the profession.

Warren R. Mullen, Jackson, Michigan, a student at the University of Michigan Medical School, was elected president; Harry W. Sandberg, Moline, Illinois, a student at the University of Illinois College of Medicine, vice president, and David Buchanan, Huron, S. D., a student at the University of South Dakota School of Medical Sciences, treasurer.

Seven other students were elected to the executive council.

The association will be made up of academic societies in medical schools of the United States which are approved by the Council on Medical Education and Hospitals of the AMA. Each society, not more than one at any school, must have a membership of at least one-fourth of the students, or eighty-five students, whichever is the smaller.

An advisory committee to each constituent society will be composed of the dean of the school, or his appointed representative; two faculty members elected by the students; a county medical society representative and a state medical society representative.

The student house of delegates has named its president and vice president as representatives to the AMA House of Delegates. A change in the constitution of the AMA to provide such representation is expected to become effective at the annual meeting in Atlantic City in June.

Say you saw it in the Journal of the Michigan State Medical Society

First Two Million.—In Detroit, Sunday, January 21, 1951, L. Howard Schriver, M.D., president of the Blue Shield Medical Care Plans Commission, presented a plaque commemorating the achievement of the first two million subscribers to R. L. Novy, M.D., president of Michigan Medical Service.

(Left to right) C. E. Umphrey, M.D., president, Michigan State Medical Society; L. Howard Schriver, M.D., president, Blue Shield Medical Care Plans; R. L. Novy, M.D., president, Michigan Medical Service; Maj. General George F. Armstrong, Deputy Surgeon General of the Army.

* * *

AEC Offers 45 Fellowships in Biological and Medical Sciences.—Among 325 fellowships offered by Atomic Energy Commission for next year, 45 are post-doctoral fellowships in the biological and medical sciences. The program will be administered by Institute of Nuclear Studies, Inc., of Oak Ridge, with National Research Council screening applicants. The biological and medical fellowships pay $3,000 in addition to dependency allowances. Some type of security clearance is required of all AEC fellows. (For full details of AEC medical program, see Capitol Clinic No. 46.)

* * *

Calhoun County Cancer Committee.—The Calhoun County Medical Society has appointed the following members as its cancer committee for 1951: A. R. Dickson, M.D., A. A. Humphrey, M.D., Stewart Barden, M.D., and Richard Stiefel, M.D., chairman, all of Battle Creek.

* * *

Rear Admiral Joel T. Boone Retires.—Marines in full dress—band and all—turned out to honor Rear Admiral Joel T. Boone upon his retirement after thirty-six years of Navy service. Admiral Boone, the most decorated physician in Navy history, had held numerous high Navy assignments and at the time of his retirement was Inspector of Medical Services. Admiral Boone won the Congressional Medal of Honor (highest combat decoration) for treating wounded after a shell blew up a Marine regimental aid station at Belleau Wood in 1918. Subsequently he received the Distinguished Service Cross and Silver Star with five Oak Leaf clusters and Purple Heart with two Oak Leaf clusters. Admiral Boone was a friend of presidents as well as miners. He served as physician to Presidents Harding, Coolidge and Hoover. Three years ago he prepared a report highly critical of health conditions in the coal-mining industry.

in sinusitis arthritis neuralgias traumatisms

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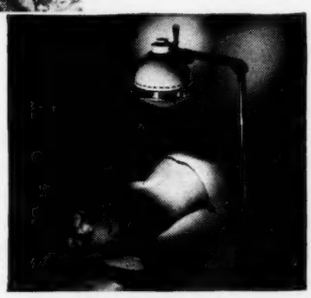

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*LERRIGO, MARION O., "Shoes Don't Grow," Today's Health, 29:52-54 (Jan.) 1951.

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British County Orders Doctors to Join Union.—A recent newspaper story said that fifty doctors employed by the socialist controlled Durham (England) county council have been told to join a trade union, under a threat of dismissal if they failed to do so. The warning was sent out by Dr. Iram McCracken, county medical officer, on council orders. The council recently passed a "join a union or be fired" rule for all its employes.

Most of the doctors affected work in child welfare and maternity services, as school doctors, and as district medical officers of health. All are members of the British Medical Association, which opposes any moves toward setting up a closed shop for doctors.

* * *

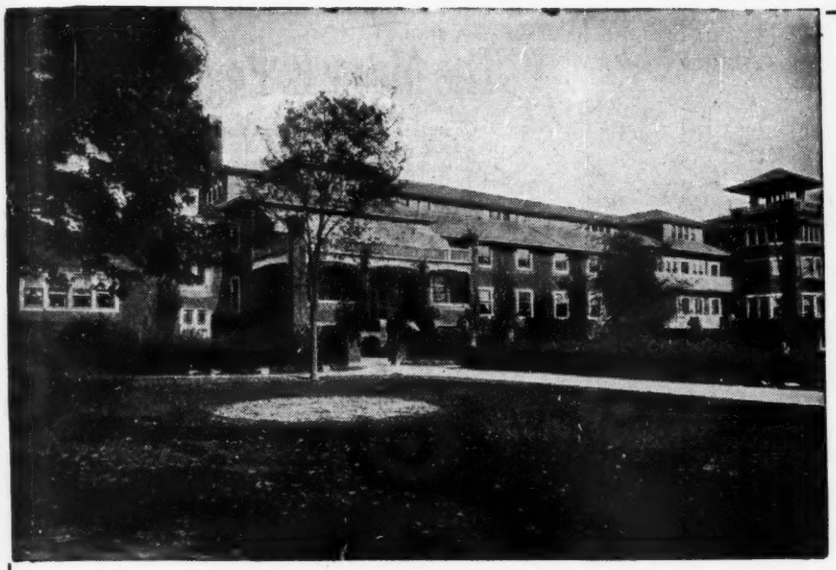
White House Conference on Children and Youth.—Youth Conference Recommendations Avoid Controversies in Health Areas: In winding up its four-day meeting, the White House Conference on Children and Youth approved a volume of recommendations, some touching on health matters, but such controversial questions as national compulsory health insurance, U. S. aid to medical education and total and permanent disability insurance were dropped out along the way.

One recommendation of the President's health plan was prepared by a work group, but was deleted by the Recommendations Committee, so the full conference did not vote on the question. Another group wrote in a recommendation for U. S. permanent and total disability insurance as a means to contributing to the security of children. However, this phrase also was deleted and the recommendation as finally adopted by the conference reads: ". . . as an aid to the economic stability of children and their mothers (we recommend that) the old age and survivors insurance program be further extended to cover workers not presently included and to make benefits more adequate; and that similar improvements be made in state unemployment insurance laws."

Several recommendations could be interpreted as indorsement of the U. S. aid to medical education, but the connection was not direct. An example: "(We recommend) that steps be taken at National, state and local levels to improve the facilities and increase the output of professional schools preparing persons for services to children."

However, the conference gave unqualified indorsement to pending legislation for aid to local public health units. That recommendation read: "Prompt action should be taken at the national level to provide funds to supplement those of states and localities, and to stimulate the early development of adequate local (public) health service throughout the country, such action being particularly needed because of the physical and mental effects of mobilization and war on mothers, children and youth."

A number of recommendations touched on other health and medical matters. Some of the principal ones: 1. More research is needed on development and adjustment of youth. 2. States should establish standards for hospital care of mothers and children, as well as minimum health standards for day-care center schools and kinder-



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gartens. 3. In developing new housing facilities, special attention should be given to "health, recreational and social needs," and children of migrant workers should receive the same health and similar services given to other children

One study section released a critical finding regarding present health services for children, but it was not included in the recommendation. This statement said: "Present health services have many inadequacies, particularly in relation to furthering healthy personality development in children and youth. Many now rendering such services do not fully understand nor give attention to the dignity and emotions of the individual, which are necessary to healthy personality development."

* * *

Army Physician Call-ups to Total 1,733 by March.—Physicians added to Army's rolls by men called up on mandatory orders and draft-eligible volunteers since the outbreak of the Korean War will reach 1,733 by mid-March. Army hopes its latest call for 980 company grade medical officers, will be filled by volunteers now classified "Priority I" under the doctor-draft—government-educated physicians with less than ninety days' active duty. A Selective Service spokesman said they are not to come through Selective Service, except as a last resort. Army hopes the men will volunteer for active duty with the reserves. The 980 physicians will go on active duty on two dates—February 5 and March 13. At the same time 850 dental officers, also classified "Priority I" are expected to report for duty.

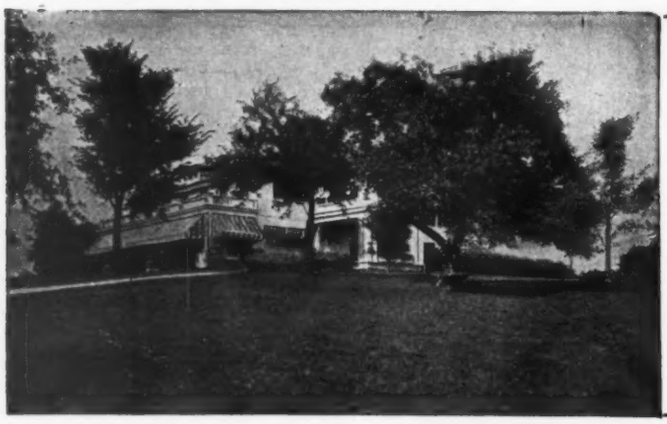
Before this call for volunteers went out, Army had involuntarily called 208 reserves since July 1 and had requisitioned 545 draft-eligible physicians. All 545 are expected to be on active duty by February or March.

* * *

Admiral Pugh Nominated for Navy Surgeon General. Rear Admiral H. Lemont Pugh has been nominated by President Truman to succeed Admiral Clifford A. Swanson as Navy Surgeon General. Admiral Pugh received his medical degree from the University of Virginia, Department of Medicine, in 1923, and has served with the Navy since. For the last four years he has been Deputy and Assistant Chief of Navy's Bureau of Medicine and Surgery.

* * *

Interim Report Being Drafted on Chemicals in Foods.—Because it wants to continue its investigation, the House Committee on Chemicals in Foods will ask for more funds and additional time. Its interim report now being drafted will not make definite legislative recommendations, but will state that the country's best scientists recognize that new chemicals present a health problem. The committee hopes to reopen hearings on the West Coast after the first of the year. The general objective is to establish regulations and controls for the protection of the public from harmful effects of pesticides, preservatives, et cetera, yet not weigh down the chemicals industry with requirements which might for practical reasons stifle research and development.



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Workers' Coverage in Health and Hospital Plans Mounting.—Special study just completed by Bureau of Labor Statistics discloses sharp increase in number of industrial workers covered by collectively bargained medical and hospital care, pension and general welfare benefits. Upward of 7,650,000 employes now have such protection, according to results of questionnaires sent to more than 200 national and international unions and to a smaller number of single-firm unions. Since 1948, coverage has increased more than 100 per cent. Life insurance ranks first among types of insurance most frequently provided in contracts, followed by hospitalization, surgical and/or medical care, accident and sickness, and accidental death or dismemberment. Nearly one-half the workers surveyed are in CIO-affiliated unions and about one-third are members of AFL organizations, remainder being in independent or unaffiliated unions.—*WRMS*, January 1, 1951.

* * *

President's Emergency Powers.—Among the President's new Emergency powers is the right to hire any necessary number of contract doctors for the Armed Forces.

* * *

American Academy of Neurology.—The American Academy of Neurology announces its 1951 meeting, which will be held April 11-13, inclusive, at the Cavalier Hotel, Virginia Beach, Virginia. This meeting will be devoted almost entirely to clinical neurology and the last session will be held jointly with the American League Against Epilepsy and will be devoted entirely to the subject of epilepsy. The Academy is instituting a new feature in association with their meeting—there will be an intensive Review Course in Neuropathology which will be presented during the morning, afternoon and evening hours of April 9 and 10 immediately preceding the meeting. The review course will be accompanied by projection of slide material which was made available to the participants in this course immediately after the first of this year. For further information regarding the course in neuropathology and the meeting, address any correspondence to D. B. Ruskin, M.D., Program Chairman, 301 Second National Bank Building, Saginaw, Michigan.

* * *

Kresge Eye Institute Affiliates with Wayne University.—Formal affiliation of the Kresge Eye Institute with the Wayne University College of Medicine was approved by the Detroit Board of Education at its meeting, Tuesday, December 26.

The Board of Trustees of the Institute and the College of Medicine's Committee on Administration adopted a resolution which stated that it was recognized that the ultimate interests of the community and the ophthalmologic care of patients will be better served by the amalgamation of the forces of the Kresge Eye Institute and the Wayne University College of Medicine.

Details of the affiliation include the provision that appointments to the scientific staff of the Institute will be made by the Board of Trustees of the Institute when such recommendations bear the endorsement of the faculty of the Wayne University College of Medicine transmitted to the Institute Board through the duly

authorized officials of the University. In addition, the dean of the College of Medicine, or his appointed representative, will be a member of the Board of Trustees; and the director of the Institute, or his appointed representative, will be a member of the Committee on Administration of the College of Medicine.

Officials of the Institute and the University expect that the affiliation will bring national support to both on a wider basis than would be possible without the combined resources. Each agency will, in addition, have greater resources in terms of personnel and research techniques upon which to draw.

* * *

All physicians in Michigan who render obstetric care are requested to report immediately to the **Michigan Department of Health,** by phone (charges reversed), when a maternal death occurs in their practice. State the name of the mother, date, place and cause of death.

Published at the request of the Maternal Mortality Study Committee of Michigan State Medical Society and the Michigan State Board of Health.

* * *

2,100 physicians were registered at the **Cleveland interim session** of the American Medical Association in December. Guests including residents, interns, nurses, medical students and technicians were 1,677. The first interim session meeting in January 1948, at Cleveland, 1,896 registered. In November 1948, the second meeting, 1,048, St. Louis, Mo., and the November 1949, meeting at Washington, D. C., 3,942. Many questions were asked as to the advisability of continuing this session. The decision was, Yes.

* * *

The American College of Radiology has instituted a course of instruction in Radiologic Defense underlining the responsibility of radiologists in atomic attacks, and it is suggested that State Medical Associations and County Medical Societies avail themselves of the services of local radiologists in the development of the local civil defense program.

* * *

Committee Member.—At its meeting held early in January, the Board of Trustees of the AMA elected Dr. L. Fernald Foster, Business Manager of THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, to succeed himself as a member of the Advisory Committee of the State Journal Advertising Bureau.

* * *

Michigan Hospital Service—Michigan Medical Service Enrollment.—Doctors and their office assistants will be able to enroll in Blue Cross and Blue Shield again this year between March 10 and April 10, 1951. Applications accepted during this period will be given the effective date of May 1. No applications will be accepted after April 10 unitil the regular annual enrollment period next year.

During the period between March 10 and April 10, all doctors and assistants who are already members may make changes in their contracts. These changes may include the addition of services to present hospital only

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or hospital-surgical service. Dependents up to nineteen years of age not previously included may also be added to the contract.

Enrollment materials, with instructions regarding procedures, will be mailed to all members of the Michigan State Medical Society by the opening date of the enrollment period. The envelopes containing the enrollment materials will be specially marked to indicate their contents. Questions pertaining to enrollment or the contracts may be directed to Michigan Hospital Service, 234 State Street, Detroit 26, Michigan.

* * *

Full-Time Local Health Departments.—The Federal Security Agency through the Public Health Service has issued an attractive pamphlet, "Your Best Buy," eight pages in color and illustrated showing that $1.50 per person per year in tax support from all sources will get a community Health Service started, which can render the seven basic services of a local public health department: (1) communicable disease prevention and control; (2) sanitation, (3) maternal and child health service; (4) vital statistics; (5) laboratory services; (6) health education; (7) chronic disease prevention and control.

* * *

State Aid Statistics for Hospital Cases.—The *Journal of the Maine Medical Association* for December, 1950, has a very illuminating article by Frank C. Curran, Director of the Eastern Maine General Hospital. Figures are presented which were taken from official reports of the State Bureau of Health, Department of Health and Welfare. Citizens of the State of Maine who are placed in financial distress because of hospital expense, **but who are otherwise self-supporting,** may apply for state aid to assist them in meeting their expenses of hospitalization. A tabulation of figures is given for all the hospitals of the state showing state aid days, per cent of total state aid, cost per day, total cost, State aid received 1949-1950 loss before patient payments, net loss per patient day. Main General Hospital had 20,786 State aid days, cost $15.44 per day, net loss per patient day $10.84. Children's Hospital figures for the same items was 7,382, $15.44, loss $10.79. Madigan Hospital showed the least loss, 2,034 patient days, cost $9.72, loss $4.07. North Maine General hospital had 6,765 patient days, cost 8.13 and loss $3.47. The average of all hospitals 111, 248 patient days of State aid, average cost $12.68 and loss $8.07.

Obviously hospitals cannot run under such conditions unless someone makes up the difference, and that does not come from the state. It comes from some donations, some endowments, but chiefly from extra charges to all other patients.

This same condition obtains in Michigan. Someone should make a study of the exact data. We understand the new legislature will be asked to correct some of these state aid abuses. There is no reason why the great State of Michigan should need help in caring for its charges. The hospital aid for indigent, welfare, children and afflicted is fixed in the law and is totally inadequate.

Say you saw it in the Journal of the Michigan State Medical Society

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them. A selection will be made for review, as expedient.

COLOR ATLAS OF PATHOLOGY. Hematopoietic System—Reticulo-Endothelial System Respiratory Tract—Cardiovascular System—Liver Alimentary Tract—Kidney and Urinary Tract, and Musculoskeletal System. Illustrated with 1053 figures in color on 365 plates. Philadelphia: J. B. Lippincott Co., Price $20.00.

This is a beautifully illustrated atlas on pathology, which, probably from a pictorial standpoint, has no equal in the English language. It is the result of six years of compilation by the staff of the U. S. Naval Medical School and National Naval Medical Center at Bethesda, Maryland, aided by civilian consultants, particularly by Dr. C. F. Geschickter. The bulk of the book's reading matter explains an adjacent and excellently colored gross specimen or photomicrograph. The text unassociated with photographs is terse and to the point, and covers a very wide range. If any fault is to be found with the atlas it lies in the fact that all of the colored illustrations are of the same size, regardless of whether they are pictures of bulky gross specimens or photomicrographs. This has made it necessary to condense relatively large specimens so that considerable necessary detail is lost. That portion of the book devoted to the pathology of the liver and the kidney is particularly excellent. Most of the pictures serve to illustrate a brief case report typical of the condition, and not only consist of the colored gross and histological findings, but reproductions of x-rays, diagrams, and even photographs of the patient. The Medical Corps of the U. S. Navy is to be complimented on the completion of a remarkable work.

A.A.H.

PHYSICIANS' AND NURSES' CONCISE MEDICAL ENCYCLOPAEDIA. By William H. Kupper, M.D., Author of "Malarial Therapy of Pareses;" "State and National Board Summary;" "Interesting and Useful Medical Statistics." Los Angeles: Biblion Press. Price $7.50.

The author has recognized the inadequacy of a dictionary and the super abundance of an encyclopedia for use of nurses and students.

This present book is a happy medium. The description and comments are sufficiently long to give a definite picture but not too long for quick reference. The print is large, clear and there is no small type. A handy aid.

RESEARCHES IN BINOCULAR VISION. By Kenneth N. Ogle, Ph.D., Section on Biophysics and Biophysical Research; Research Consultant in the Section on Ophthalmology, Mayo Foundation and Mayo Clinic, Rochester, Minnesota. 345 pages with 182 figures and 26 tables. Philadelphia and London: W. B. Saunders Company, 1950. Price $7.50.

The problem of binocular vision presents many complicated problems when it manifests itself as a problem. This goes very minutely into the physics and mathematics of binocular vision, and the many unexplained abnormal reactions noticed for years. A few men worked out some answers, and finally a study group was established at Dartmouth where minute studies were made and methods of correcting abnormalities were devised. The most important however was probably

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Surgical Technic, Surgical Anatomy and Clinical Surgery, four weeks, starting March 5, April 2, April 30.
Surgical Anatomy and Clinical Surgery, two weeks, starting February 19, March 19, April 16.
Surgery of Colon and Rectum, one week, starting March 5, April 9.
Basic Principles in General Surgery, two weeks, starting April 2.
Gallbladder Surgery, ten hours, starting April 23.
Fractures and Traumatic Surgery, two weeks, starting March 19.

GYNECOLOGY—Intensive Course, two weeks, starting February 19, March 19.
Vaginal Approach to Pelvic Surgery, one week, starting March 5, April 2.

OBSTETRICS—Intensive Course, two weeks, starting March 5, April 2.

MEDICINE—Intensive General Course, two weeks, starting April 23.
Gastro-enterology, two weeks, starting May 14.
Gastroscopy, two weeks, starting March 5.
Electrocardiography and Heart Disease, two weeks, starting March 19.

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the development of scientific means of study and interpretation. The author was one of that group, working independently for a time, and with unusual success, then he joined the group. This book is a complete study of the mathematical formulae, the methods of study, and analyses of many findings. The book is advanced reading, only understood if studied in uniformity, and it is not to be read, but to be studied and experienced. A most important addition to the ophthalmic field, dealing with abnormalities.

NATURAL CHILDBIRTH. A Manual for Expectant Parents. By Frederick W. Goodrich, Jr. New York: Prentice-Hall, Price $2.95.

This is a rather extensive book for the education and guidance of expectant mothers. It gives clear and detailed accounts of the natural physiological process of the period of pregnancy, taking up each trimester by itself. There are chapters on when to visit the doctor, relaxation, exercise, diet, breast feeding, also chapters on the physiology of labor, and the psychology of labor.

The book is intended for use of the patient, and adds materially to the doctor's satisfaction and his patient's well being.

FREUD: DICTIONARY OF PSYCHOANALYSIS. Edited by Nandor Fodor, Associate of the Association for the Advancement of Psychotherapy, and Frank Gaynor, Co-Author of the "Dictionary of Industrial Psychology," with a Preface by Theodor Reik, Author of "Listening with the Third Ear." New York: Philosophical Library.

The author complains that the definitions and terms used by Freud have been changed and have made psychiatry confusing.

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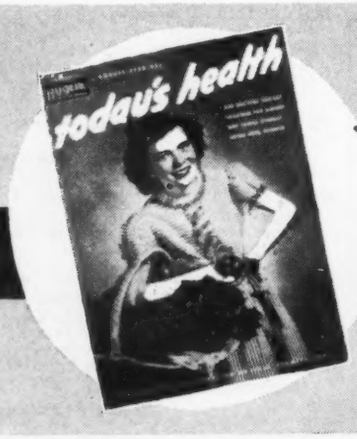

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A very interesting combination of dictionary and encyclopedia.

PARKINSON'S DISEASE. By Walter Buchler. Advice and aid for sufferers from Parkinson's disease and other physical disabilities. London: Walter Buchler. Price $2.00.

This monograph is written by a layman who has been afflicted with the disease for eight years and is for his "fellow sufferers." It is in language that they can understand and should be of value to each and every one of them. The amount of practicable information that it contains should not only be known to them but also by all physicians who may have only one "P.D." patient or ever expect to see one in their practice. It is easy reading and as it is basically an autobiography with a story to tell, it maintains one's interest and after its completion one feels that the time spent has been well worth while. This book can be heartily recommended to all persons having Parkinson's disease.

G.W.S.

FACTS ABOUT AMA DUES

(Continued from Page 130)

from the payment of American Medical Association membership dues only under the provision described in Paragraph 8 above.

10. American Medical Association membership dues include subscription to *The Journal of the American Medical Association*. Active members of the Association who are excused from the payment of dues will not receive *The Journal* except by personal subscription at the regular subscription rate of $15.00 a year.

11. Member Fellows may substitute one of the special journals published by the Association for *The Journal* to which they are entitled as members. A Fellow who substitutes a special journal will not also receive *The Journal*.

12. A member of the American Medical Association who joins the Association on or after July 1 will pay membership dues for that year of $12.50 instead of the full $25.00 membership dues.

13. An active member is delinquent if his dues are not paid by Dec. 31 of the year for which dues are prescribed and shall forfeit his active membership in the American Medical Association if he fails to pay the delinquent dues within thirty days after the notice of his delinquency has been mailed by the Secretary of the American Medical Association to his last known address.

14. Members of the American Medical Association who have been dropped from the Membership Roll for nonpayment of annual dues cannot be reinstated until such indebtedness has been discharged.

15. The apportionment of delegates from each constitutent association shall be one delegate for each thousand (1,000), or fraction thereof, *dues paying active members of the American Medical Association* as recorded in the office of the Secretary of the American Medical Association on December 1 of each year.—A.M.A. Secretary's Letter, Jan. 8, 1951.

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LOCUM TENENS: Second year pediatric resident desires pediatric locum tenens practice for month of March, 1951. Write: G. Pulford, M.D., 205 Observatory, Ann Arbor, Michigan.

WANTED—M.D. for community without medical care for some time. Fifteen bed hospital, with x-ray, modern operating, delivery and laboratory facilities to open soon. (Non-sectarian). Growing resort area, near Traverse City, and twelve miles from Manistee. Write Memorial Hospital Board, Attention Mrs. Leonard Erickson, Onekama, Michigan.

ARMY DEVELOPS PERFECT SUBSTITUTE FOR MORPHINE

(Continued from Page 138)

generally administered subcutaneously, it may be given intravenously or by mouth.

The Army operates under the most exacting and variable conditions throughout the world. Accordingly, before making a final appraisal of methadone it was felt that the ultimate test lay in using it in the most demanding environment we ever expect to encounter. Actually, two field tests were made in the Far East, one by three doctors at Toyko Army Hospital who administered methadone on a round-the-clock basis; the other by Dr. Beecher himself at the evacuation hospital near Hamhung. In the field it was used preoperatively in from minutes to hours of the time men were wounded. One major objective of the Korean field tests was to see whether it would stand up under the stress and strain of abnormal conditions. It did, even when the temperature was 27 degrees below zero. Methadone has the same rapidity and duration of effect as morphine.

At the Anzio beachhead where he spent seventy-five days, Dr. Beecher found that men with severe wounds are not always in pain. The reason for this, he said, is that emotion can block pain. He further stated that only one-fourth of seriously wounded men feel enough pain to want a pain-relieving drug.

The new discovery makes the United States quite independent of foreign opium markets of Asia and the Near East.

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